

AD-A245 103



2

**MEDICAL SURVEILLANCE  
PROCEDURES MANUAL  
AND  
MEDICAL MATRIX  
(EDITION 4)**

**DISTRIBUTION STATEMENT A**  
Approved for public release;  
Distribution Unlimited

**DTIC**  
**SELECTE**  
**S B D**  
JAN 17 1992

NAVY ENVIRONMENTAL HEALTH CENTER



BUREAU OF MEDICINE AND SURGERY

**92-01431**



92 1 15 025

*Distribution unlimited.*  
*Local reproduction of this manual is authorized.*

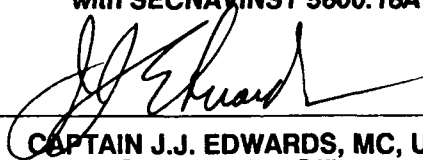
**MEDICAL SURVEILLANCE  
PROCEDURES MANUAL  
AND  
MEDICAL MATRIX  
(EDITION 4)**

**Published By**

**NAVY ENVIRONMENTAL HEALTH CENTER  
2510 WALMER AVENUE  
NORFOLK, VIRGINIA 23513-2617**

**SEPTEMBER 1991**

Reviewed and approved in accordance  
with SECNAVINST 5600.16A

A handwritten signature in black ink, appearing to read "J.J. Edwards", is written over a horizontal line.

CAPTAIN J.J. EDWARDS, MC, USN  
Commanding Officer



# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

3596

This report is to be submitted for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE		3. REPORT TYPE AND DATES COVERED FINAL REVISION AS OF SEPTEMBER 1991	
4. TITLE AND SUBTITLE MEDICAL SURVEILLANCE PROCEDURES MANUAL AND MEDICAL MATRIX (edition 4)				5. FUNDING NUMBERS TECHNICAL MANUAL NEHC-TM91-5	
6. AUTHOR(S) Matrix Committee: Martha Murray, RN, COHN; CAPT E. Doyle, MC, USN; Lois Moody, RN, MS, COHN; CDR G. Gullickson, MC, USN; CDR R. Thomas, MC, USN; LCDR D. Sack, MC, USN; CDR R. Bonner, MC, USNR					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) COMMANDING OFFICER NAVY ENVIRONMENTAL HEALTH CENTER ATTENTION: MEDICAL MATRIX COMMITTEE 2510 WALMER AVENUE, NORFOLK, VA 23513-2617				8. PERFORMING ORGANIZATION REPORT NUMBER  Edition 4	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) COMMANDING OFFICER NAVY ENVIRONMENTAL HEALTH CENTER 2510 WALMER AVENUE NORFOLK, VA 23513-2617				10. SPONSORING / MONITORING AGENCY REPORT NUMBER  TM NEHC-TM91-5	
11. SUPPLEMENTARY NOTES  This edition supercedes edition 3 (NEHC-TM89-3 of January 1989)					
12a. DISTRIBUTION / AVAILABILITY STATEMENT				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This manual was prepared for use by physicians, nurses, industrial hygienists and other health professionals in implementing the Navy Occupational Safety and Health program. It includes the OSHA, Navy and other federal agency requirements for Occupational Medical Surveillance and job certifications. The Medical Matrix, Edition 4, contains 122 medical surveillance and certification examinations. The programs are divided into four major sections and each section is preceded by a brief introduction designed to give guidance for use of that section. Each program is organized in the same format. The first part of the program includes medical history questions; personal, work and family. The next part includes any recommended laboratory or ancillary (EKG, PFT, audiogram) tests. Areas which should be targeted on physical examination are listed next; CNS, kidney, liver, for example. Special requirements such as qualification and certification are listed next followed by special notations such as warnings, assessment of knowledge and physician's written opinion. Each section ends with a line prompting for comments on that section if indicated. Program descriptions and references follow.					
14. SUBJECT TERMS MEDICAL MATRIX, JOB CERTIFICATIONS, MEDICAL EXAMINATIONS, MEDICAL SURVEILLANCE, OSHA MEDICAL EVALUATIONS				15. NUMBER OF PAGES 328 pages	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT  UL		

MEDICAL SURVEILLANCE PROCEDURES MANUAL

AND

MEDICAL MATRIX  
(Edition 4)

Questions about the Medical Surveillance Procedures Manual and Medical Matrix (Edition 4) as well as requests for assistance in implementation and review of programs should be directed to the occupational health staff at the following locations:

Navy Environmental and Preventive Medicine  
Unit No. 2  
Naval Station, Bldg. X-336  
Norfolk, VA 23511-6288

(804) 444-7671  
DSN 564-7671

Navy Environmental and Preventive Medicine  
Unit No. 5  
Naval Station, Box 143, Bldg. 3235  
San Diego, CA 92136-5143

(619) 556-7070  
DSN 526-7070

Navy Environmental and Preventive Medicine  
Unit No. 6  
Box 112, Bldg, 1535  
Pearl Harbor, HI 96860-5040

(808) 471-9505  
DSN 471-9505

Navy Environmental and Preventive Medicine  
Unit No. 7  
PSC 810, Box 41  
FPO AE 09619-4299

39-81-724-4468  
DSN 625-4468

Navy Disease Vector Ecology and Control Center  
Naval Air Station, Box 43, Bldg. 937  
Jacksonville, FL 32212-0043

(906) 772-2424  
DSN 942-2424

Navy Disease Vector Ecology and Control Center  
Naval Air Station, Bldg. 130  
Alameda, CA 94501-5039

(415) 263-2806  
DSN 993-2806

Navy Environmental Health Center Detachment  
Portsmouth Naval Shipyard, Building H-1  
Portsmouth, NH 03804-5000

(207) 438-1998  
DSN 684-1998



Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

## FORWARD

This update of the Medical Matrix is the result of the work of a group of individuals dedicated to providing a tool for improving medical surveillance programs for Navy workers. Work was initiated by members of the Medical Validation Committee with significant assistance from the staff of the Scientific Directorate at the NAVENVIRHLTHCEN.

### Committee Members:

Martha Murray, RN, COHN, Chairman  
CAPT Ed Doyle, MC, USN  
Lois Moody, RN, MS, COHN  
CDR Gail Gullickson, MC, USN  
CDR Richard Thomas, MC, USN  
LCDR David Sack, MC, USN  
CDR Robert Bonner, MC, USNR

### Special assistance from:

LCDR Allene Scott, MC, USN  
Dr. Randale E. Bass  
CDR Rick Gilbert, MC, USN  
Dr. Lourdes L. Little  
LCDR Jim Brooks, MC, USN(FS)  
Nancy Craft, R.N., BSEH, COHN  
CAPT William Yang, MC, USN  
James R. Crawl, MS, CIH

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	Introduction	
1.1	Medical Screening Examinations.....	1-1
1.1	Types of Medical Screening Examinations.....	1-2
1.1.1	Baseline.....	1-2
1.1.2	Periodic.....	1-2
1.1.3	Termination.....	1-2
1.1.4	Situational.....	1-2
1.2	Content of Medical Screening Examinations.....	1-3
1.3	Standard questions included in each program.....	1-4
2.	Placement of Workers in Medical Surveillance Programs.....	2-1
3.	How to Use the Matrix	
3.1	History of Development.....	3-1
3.2	Explanation of Contents.....	3-1
3.3	Four Divisions of the Matrix.....	3-2
3.3.1	Chemical Stressors.....	3-2
3.3.2	Physical Stressors.....	3-2
3.3.3	Mixed Exposures.....	3-2
3.3.4	Certification Examinations.....	3-2
4.	Chemical Stressors Section	
	Introduction.....	4
	2-Acetylaminofluorene.....	4-1
	Acrylamide.....	4-3
	Acrylonitrile (Vinyl Cyanide).....	4-5
	Allyl Chloride.....	4-7
	4-Aminodiphenyl.....	4-9
	Anesthetic Gases.....	4-11
	Animal Associated Disease.....	4-13
	Antimony.....	4-15
	Antineoplastic Drugs.....	4-17
	Arsenic 10+ Years Exposure.....	4-19
	Arsenic Any Exposure.....	4-21
	Asbestos Current Worker 10+ Years Since First Exposure....	4-23
	Asbestos Current 0 to 10 Years Since First Exposure.....	4-25

<u>Section</u>	<u>Title</u>	<u>Page</u>
4.	Chemical Stressors Section (continued)	
	Asbestos Past Worker 10+ Years Exposure.....	4-27
	Asbestos Past Worker 0 to 10 Years Since First Exposure...	4-29
	Benzene.....	4-31
	Benzidine.....	4-33
	Beryllium.....	4-35
	Blood and/or Body Fluids.....	4-37
	Boron Trifluoride.....	4-39
	Cadmium.....	4-41
	Carbon Black.....	4-43
	Carbon Disulfide.....	4-45
	Carbon Monoxide.....	4-47
	Carbon Tetrachloride.....	4-49
	Chloroform.....	4-51
	bis (Chloromethyl) Ether.....	4-53
	beta-chloroprene.....	4-55
	Chromic Acid/Chromium (VI).....	4-57
	Coal Tar Pitch Volatiles/Polycyclic Aromatic Hydrocarbons.	4-59
	Cobalt.....	4-61
	Cresol.....	4-63
	1,2-Dibromo-3-Chloropropane (DBCP).....	4-65
	3,3'-Dichlorobenzidine.....	4-67
	4-Dimethylaminoazobenzene.....	4-69
	Dinitro-Ortho-Cresol.....	4-71
	Dioxane.....	4-73
	Epichlorohydrin.....	4-75
	Ethoxy and Methoxy Ethanol.....	4-77
	Ethylene Dibromide.....	4-79
	Ethylene Dichloride.....	4-81
	Ethylene Oxide.....	4-83
	Ethyleneimine.....	4-85
	Fluorides (Inorganic).....	4-87
	Formaldehyde.....	4-89
	Glycidyl Ethers.....	4-91
	Herbicides.....	4-93
	Hydrazines.....	4-95
	Hydrogen Cyanide/Cyanide Salts.....	4-97
	Hydrogen Sulfide.....	4-99
	Hydroquinone (Dihydroxy Benzene).....	4-101
	Isocyanates.....	4-103
	Lead (Inorganic).....	4-105
	Machine Oil Mists/Cutting Fluids.....	4-107

<u>Section</u>	<u>Title</u>	<u>Page</u>
4.	Chemical Stressors Section (continued)	
	Manganese Oxide Fumes.....	4-109
	Manmade Mineral Fibers.....	4-111
	Mercury.....	4-113
	Methyl Bromide.....	4-115
	Methyl Chloromethyl Ether.....	4-117
	4,4'-Methylene BIS (2-Chloroaniline) (MOCA).....	4-119
	Methylene Chloride (Dichloromethane).....	4-121
	Methylene Dianiline.....	4-123
	alpha-Naphthylamine.....	4-125
	beta-Naphthylamine.....	4-127
	Nickel (Inorganic).....	4-129
	Nickel Carbonyl.....	4-131
	Nitrogen Oxides.....	4-133
	4-Nitrobiphenyl.....	4-135
	Nitroglycerine.....	4-137
	2-Nitropropane.....	4-139
	N-Nitrosodimethylamine.....	4-141
	Organophosphate/Carbamate Compounds.....	4-143
	Organotin Compounds.....	4-145
	OTTO Fuel/Other Alkyl Nitrate Propellants.....	4-147
	Polychlorinated Biphenyls (PCB).....	4-149
	beta-Propiolactone.....	4-151
	Silica (Crystalline).....	4-153
	Styrene.....	4-155
	Sulfur Dioxide.....	4-157
	1,1,2,2-Tetrachloroethane.....	4-159
	Tetrachloroethylene (Perchloroethylene).....	4-161
	Tetryl.....	4-163
	o-Tolidine.....	4-165
	Toluene.....	4-167
	o-Toluidine.....	4-169
	1,1,1-Trichloroethane (Methylchloroform).....	4-171
	Trichloroethylene.....	4-173
	Triorthocresylphosphate (TOCP).....	4-175
	Tungsten and Cemented Tungsten Carbide.....	4-177
	Vanadium.....	4-179
	Vinyl Chloride 10+ Years Exposure (Chloroethene).....	4-181
	Vinyl Chloride Any Exposure (Chloroethene).....	4-183
	Xylene.....	4-185

<u>Section</u>	<u>Title</u>	<u>Page</u>
5.	Physical Stressors Section	
	Introduction.....	5
	Cold.....	5-1
	Heat.....	5-3
	Noise.....	5-5
	Noise - Follow Up.....	5-7
	Radiation - Ionizing.....	5-9
	Radiation - Laser (Class III and IV).....	5-11
	Radiation - Radiofrequency and Microwave.....	5-13
	Segmental Vibration.....	5-15
	Sight Conservation.....	5-17
	Whole Body Vibration.....	5-19
6.	Mixed Exposures Section	
	Introduction.....	6
	Acid/Alkali (pH < 4.0 or > 11.0).....	6-1
	Metal Fumes.....	6-3
	Mixed Solvents.....	6-5
7.	Certification Examinations Section	
	Introduction.....	7
	Aviation.....	7-1
	Child Care Worker.....	7-3
	Construction, Railroad, and Weight Handling Equipment Operators.....	7-5
	Department of Transportation (DOT) Vehicle Operators.....	7-7
	Diver/Hyperbaric Worker.....	7-9
	Firefighter.....	7-11
	Firefighter Instructor.....	7-13
	Foodservice Personnel.....	7-15
	Forklift Operator.....	7-17
	Freon Workers.....	7-19
	Hazardous Waste Workers and Emergency Responders.....	7-21
	Health Care Worker.....	7-23
	Motor Vehicle Operator (Other than DOT).....	7-25
	Naval Investigative Service.....	7-27
	Police/Guard Security.....	7-29
	Preplacement/Preemployment.....	7-31
	Respirator User Certification Exam.....	7-33
	Submarine Duty.....	7-35
	Waste Water/Sewage Worker.....	7-37

<u>Section</u>	<u>Title</u>	<u>Page</u>
8. Appendices		
Appendix A:	List of Tests.....	8-A
Appendix B:	Stressors reviewed and not included.....	8-B
Appendix C:	List of References.....	8-C
Appendix D:	Request for Change/Addition.....	8-D
Appendix E:	Sample SF 600's.....	8-E
Appendix F:	Sample Physician's Written Opinions.....	8-F
F-1:	Asbestos Medical Surveillance Program.....	8-F-1
F-2:	Hazardous Waste Workers and Emergency Responders.....	8-F-2
F-3:	Occupational Exposure to Blood and/or Body Fluids.....	8-F-3
F-4:	Occupational Exposure to Ethylene Oxide.....	8-F-4
F-5:	Occupational Exposure to Formaldehyde.....	8-F-5
F-6:	Occupational Exposure to Lead.....	8-F-6
F-7:	Notification of Permanent Threshold Shift.....	8-F-7
Appendix G:	American Cancer Society Recommendations for performing Hemoccult II.....	8-G
Appendix H:	Alphabetical Listing of Stressors/Programs.....	8-H



## INTRODUCTION

1.1 Medical screening examination as part of a medical surveillance program is one of several tools that aims to protect workers who are exposed or potentially exposed to hazardous substances in the workplace.

A medical surveillance program includes identifying workers who need examination, establishing exam content, performing occupational medical examinations, documenting results of examinations, informing the employee of the results of examination, following up abnormalities, counseling and education, and evaluation of grouped data for trends and subclinical effects of exposure.

Selection of personnel for medical surveillance programs is based primarily on the results of the industrial hygiene survey and is exposure driven. This is known as "hazard based". In the absence of industrial hygiene data, medical personnel will make a decision on placement in medical surveillance programs based on knowledge of the workplace, job requirements and review of occupational history.

Exam content is established in the Medical Matrix for performing hazard based medical examinations and certification examinations.

Special attention in performing occupational medical examinations is given to those target organs or organ systems potentially subject to the untoward effects of hazardous substances whether by inhalation, absorption or ingestion. Elements of examination include specific history questions (personal and family medical history, and work history), physical examination, x-ray, biological monitoring (testing of body fluids or tissues for the toxic substance itself, a metabolite or a physiologic change), and other laboratory and ancillary tests such as EKG, PFT and audiogram. Occupational medical examinations used to detect early organ dysfunction or early disease to benefit individual workers is "screening" or "monitoring" constitutes secondary prevention.

Workers must be informed of the results of the occupational medical examination with documentation in the medical record.

An integral component of the occupational medical examination is follow-up. Follow-up may include notification, additional tests or evaluation, evaluation or modification of the workplace or removal from exposure.

Workers who receive occupational medical examinations should be informed of any specific health risks identified on examination.

1.1 Types of Occupational Medical Examinations: Most medical surveillance programs consist of examinations for baseline (preplacement), periodic and termination exam. If there is evidence of overexposure, a situational examination will be required.

1.1.1 Baseline Examination - (Preplacement or Preassignment) This examination is performed before the employee starts work in a position with a potential for hazardous exposure and provides information necessary to determine suitability of the employee for the job. It also provides a baseline against which changes can be compared.

1.1.2 Periodic Examination - This examination is performed during the time that a worker is employed in a job with a potential for hazardous exposure. The frequency and extent of periodic examinations vary, depending on the program. With certain stressors, the frequency of examinations will also depend on other variables, such as the findings from previous examinations, the history of exposure and/or the age of the worker.

1.1.3 Termination Examination - This examination is performed when the worker terminates employment or is permanently removed from a position which has a potential for hazardous exposure. Documentation of the worker's state of health at the termination of employment or exposure is essential for comparison purposes if the worker later develops medical problems that could be attributed to past occupational exposures. In some cases, this examination is not required if a periodic examination has been documented within the past twelve months.

1.1.4 Situational Examination - This examination is conducted in response to a specific incident for which a possible hazardous overexposure is suspected. Such an incident should prompt these examinations on all individuals with suspected overexposure, not just those already in a surveillance program. These examinations may vary significantly from routine medical surveillance protocols.

#### References

1. Halperin W, Ratcliffe J, Frazier T, et al. Medical Screening in the workplace: proposed principles, *J Occup Med.* 1986;28:547-552.
2. Matte T, Fine L, Meinhardt T, et al. Guidelines for medical screening in the workplace, *Occup Med.: State of the Art Reviews.* 1990;5:439-456.
3. Silverstein M. Medical Screening, Surveillance, and the Prevention of Occupational Disease. *J Occup Med.* 1990;32:1032-1036.
4. Baker E, Honchar, P, Fine, L, et al. Surveillance in Occupational Illness and Injury: Concepts and Content, *Am J. of Public Health.* 1989;79:9-11.

## 1.2 Content of Medical Examinations:

A list containing history questions, types of physical examinations and laboratory tests was developed as a reference file and used to construct the content of each program in the Medical Matrix. Each item in the reference file is called a "test". The tests are divided into similar categories such as Medical History, Cardiology, Spirometry, etc., and numbered in sequence. All tests used in construction of the Matrix are displayed in Appendix A. Below is an outline of the major categories of tests and the corresponding numbers in the reference file.

	Test Numbers
Medical History	
Personal History of:	1100 - 1760
Work History of:	2000 - 2215
Family History of:	2500 - 2545
Laboratory:	
Hematology	3100 - 3141
Serum Chemistry	3500 - 3670
Urinalysis	4000 - 4270
Cytology	4500 - 4520
Other Laboratory Tests	4800 - 4855
Cardiology	5000 - 5020
Audiology	5200 - 5230
Radiology	5400 - 5425
Spirometry	5600 - 5610
Optometry	5800 - 5860
Physical Exam	6010 - 6990
Qualifications	7100 - 7150
Certifications	7500 - 7730
Hearing Conservation	8000 - 8130
Special Notations	9010 - 9067

### 1.3 Twelve Standard Questions:

There are twelve (12) standard questions included in each Medical Matrix program designed to help assess public health and safety risk factors for each worker. These questions were written for inclusion in data collection protocol when developed. The standard twelve questions are:

1. Is Your Work Exposure History Current (OPNAV 5100/15)
2. Major Illness or Injury
3. Hospitalization or Surgery
4. Cancer
5. Back Injury
6. Do you drink 6 or more drinks per week? (beer, wine, liquor)
7. Have you ever smoked?
8. Do you currently smoke? (packs/day)
9. Heart Disease, High Blood Pressure or Stroke
10. Current Medication Use (Prescription or OTC)
11. Allergies (Include Medications)
12. Seat Belt Use (Always, Mostly, Some or None)

## PLACEMENT OF WORKERS IN MEDICAL SURVEILLANCE PROGRAMS

2. Workers with potential exposure to hazards are usually placed in medical surveillance programs based on industrial hygiene (IH) and/or safety surveys which quantify exposures in the workplace. This has been called "hazard based" medical surveillance. Workplace hazard assessment takes into account exposure levels (frequency and duration), and routes of exposure (inhalation, skin absorption or ingestion).

The decision to include an individual in a program is normally based on the possibility of exposure at or above the action level set by U.S. Navy standards which must comply with Occupational Safety and Health Administration (OSHA) standards. If insufficient data or no data are available, individuals may be placed in medical surveillance based on "presumed" exposures and job title. When this happens, individuals need to be reassessed as IH data are obtained and included or excluded from medical surveillance as appropriate.

Workers whose jobs are associated with exposures to hazards above the medical surveillance action level for more than 30 days per year or 10 days per quarter are placed into medical surveillance programs (COMNAVMECOM ltr 6260 Ser 242/0258 of 2 May 1988). When there is no legal standard for medical examinations for specific agents, or when there are insufficient data to demonstrate compliance with a high degree of confidence, half of a recommended exposure limit, (i.e., threshold limit value - TLV), may be used as the action level. Some programs have specific guidance for placement: asbestos, organophosphate pesticide workers, hearing conservation, sight conservation, and radiation workers.

## HOW TO USE THE MEDICAL MATRIX

### 3.1 History of Development:

The Medical Matrix Validation Committee was formed in March 1988. The tasking given to the Committee was to review an existing Medical Matrix and to design a process which would support hazard based medical surveillance. The goal of the Committee became development of standard examination protocols for medical surveillance programs which could be presented in a useable format. The original Matrix was published as a Navy Environmental Health Center (NAVENVIRHLTHCEN) Technical Manual in January, 1989.

The Committee has continued to review existing programs, evaluate the need for and write new programs for those stressors which have chronic health effects. For those stressors which were reviewed and for which no evidence of chronic health effects could be found, see Appendix B. This list will be reviewed periodically and if new information indicates, a stressor may be added to the Medical Matrix.

### 3.2 Contents:

The Medical Matrix, Edition 4, contains 122 medical surveillance and certification examinations. The programs are divided into four major sections and each section is preceded by a brief introduction designed to give guidance for use of that section.

Each program is organized in the same format. The first part of the program includes medical history questions; personal, work and family. The next part includes any recommended laboratory or ancillary (EKG, PFT, audiogram) tests. Areas which should be targeted on physical examination are listed next; CNS, kidney, liver, for example. Special requirements such as qualification and certification are listed next followed by special notations such as warnings, assessment of knowledge and physician's written opinion. Each section ends with a line prompting for comments on that section if indicated.

Following each program is a program description section which includes several useful items. General references are included as numbers which correspond to the reference list found in Appendix C. These general texts were used in developing each program and can provide the user with additional information. Specific references such as Navy instructions, OSHA Standards, Department of Defense, Office of Personnel Management or Civilian Personnel Instructions are listed in the program description. References listed were current at the time of publication. Individual users are responsible for ensuring that the most current instruction is used. Detailed guidance and interpretation may be included to further explain the program. Also included in the Program Description is the date of the most recent revision.

The Provider Comments section, when used, contains more detailed information about the program including guidance about the exam, how to interpret test results, and what to do with test results which are outside the range of normal.

### 3.3 Four divisions of the matrix:

3.3.1 Chemical Stressors: All programs included in this section will be numbered 101 - 499, and listed alphabetically in the program listing.

3.3.2 Physical Stressors: All programs included in this section will be numbered 501 - 599, and listed alphabetically in the program listing.

3.3.3 Mixed Exposures: All programs included in this section will be numbered 601 - 699, and listed alphabetically in the program listing.

3.3.4 Certification Examinations: All programs included in this section will be numbered 701 - 799, and listed alphabetically in the program listing.

## Chemical Stressors Introduction

Several chemical stressors have been removed from Edition 4 either because of the absence of documented chronic effect (ammonia, ethylene glycol) or combined with existing programs because of similarities in screening approach (caustic acids, caustic bases, ketone solvents and alkyl nitrate propellants). Those agents which are either highly toxic with no expectation for chronic exposure or which don't exist in the Navy system have been removed from this section.

Tests used for hepatic and renal screening have been simplified. In most programs, a baseline hepatic panel (SGOT (AST), Total Bilirubin, Alkaline Phosphatase) is obtained with the SGOT (AST) used as the routine periodic screening test for hepatocellular function. SGOT (AST) was chosen as the test to be used for screening after extensive literature search and much discussion. Both serum potassium and sodium have been deleted from the renal panel for a lack of sensitivity in detecting renal disease.

The Program Description and Provider Comments sections have been expanded. Information on reference sources, periodicity requirements for specific tests, age requirements for specific tests and date of most recent revision are included in each Program Description section. Provider Comments, added to several programs, will include information on exam requirements to help physicians, nurses and corpsmen using the manual to better understand program requirements. This section will also list which appendices may be used for additional information and sample forms such as Physicians' Written Opinions.

See Placement of Workers in Medical Surveillance Programs, p. 2-1.



## 102 2-ACETYLAMINOFLUORENE

STRESSOR(S) IN THIS PROGRAM:  
2-ACETYLAMINOFLUORENE

NIOSH # CAS #  
AB9450000 53-96-3

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1014

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCLUDE CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
SUBSTANCE(S) SUSPECTED HUMAN MUTAGENIC/FETOTOXIC EFF.		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

This compound was being developed as a pesticide until carcinogenic activity was discovered. In recent years, it has been used only in laboratories as a model of tumorigenic activity in animals. It is of little occupational health importance. References: (3); (5); (other); 29 CFR 1910.1014. PROGRAM REVISED 8/90.

## 103     ACRYLAMIDE

STRESSOR(S) IN THIS PROGRAM:  
ACRYLAMIDE

NIOSH #     CAS #  
AS3325000     79-06-1

PROGRAM FREQUENCY:     ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
WEIGHT LOSS		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

## PROGRAM DESCRIPTION:

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH Criteria for a Written Standard...Occupational Exposure to Acrylamide DHEW Pub No. 77-112.  
PROGRAM REVISED 8/90.

104 ACRYLONITRILE (VINYL CYANIDE)

STRESSOR(S) IN THIS PROGRAM:  
ACRYLONITRILE

NIOSH # CAS #  
AT5250000 107-13-1

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1045

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
PNEUMONIA		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	YES
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	YES
PERSONALITY CHANGE		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

**LABORATORY-**

**SERUM CHEMISTRY:**

**LIVER PROFILE TO INCLUDE:**

SGOT (AST), TOT. BILIRUBIN, ALK PHOS.

YES NO YES

SGOT (AST)

YES ANNUAL YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>ADDITIONAL LAB TESTS:</b>				
STOOL HEMOCCULT (OVER AGE 45)		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
ABDOMEN		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
THYROID		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

See Appendix H for recommendations from American Cancer Society for performing the Hemoccult II. REFERENCES: (1); (2); (3); (4); (OTHER); 29 CFR 1910.1045. PROGRAM REVIEWED 8/90.

**PROVIDER COMMENTS:**

29 CFR 1910.1045 requires an annual chest x-ray.

105 ALLYL CHLORIDE

STRESSOR(S) IN THIS PROGRAM:  
ALLYL CHLORIDE

NIOSH # CAS #  
UC7350000 107-05-1

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILIRUBIN, ALK. PHOS.		YES	ANNUAL	NO
BUN AND CREATININE		YES	ANNUAL	NO
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO

EXAM ELEMENT	EXAM GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES (3); (4); (OTHER); NIOSH Criteria For a Recommended  
Standard...Occupational Exposure to Allyl Chloride DHEW Pub No. 76-204.  
PROGRAM REVISED 8/90.

106 4-AMINODIPHENYL

STRESSOR(S) IN THIS PROGRAM:  
4-AMINODIPHENYL

NIOSH # CAS #  
DU8925000 92-67-1

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1011

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE	YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)	YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION	YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)	YES	ANNUAL	YES

FAMILY HISTORY OF:

GENETIC DISEASE (INCLUDE CHILDREN)	YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES

COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES
------------------------------	-----	--------	-----

LABORATORY-

URINALYSIS:

ROUTINE:

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----

COMMENTS ON LABORATORY RESULTS:	YES	ANNUAL	YES
---------------------------------	-----	--------	-----

PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	YES
-------------	-----	--------	-----

SPECIAL ATTENTION IN EXAMINATION TO:

IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)	YES	ANNUAL	YES
-------------------------------------	-----	--------	-----

OTHER APPROPRIATE EXAMINATION (SPECIFY)	YES	ANNUAL	YES
---	-----	--------	-----

COMMENTS ON PHYSICAL EXAMINATION:	YES	ANNUAL	YES
-----------------------------------	-----	--------	-----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	R <sup>CM</sup> OVAL
SPECIAL NOTATIONS:				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (OTHER); 29 CFR 1910.1011. PROGRAM REVISED 8/90.

108 ANESTHETIC GASES

STRESSOR(S) IN THIS PROGRAM:  
HALOTHANE  
NITROUS OXIDE

NIOSH # CAS #  
KH6550000 151-67-7

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
MIGRAINE HEADACHE		YES	ANNUAL	YES
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	YES
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	YES
PERSONALITY CHANGE		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO CHEMOTHERAPEUTIC AGENTS		YES	ANNUAL	YES
EXP TO ANESTHETIC GASES		YES	ANNUAL	YES
EXP TO ETHYLENE OXIDE		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>FAMILY HISTORY OF:</b>				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
REQUIRED WHEN POSITIVE HISTORY QUESTIONS ARE OBTAINED:				
VITAL SIGNS		YES	***	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	***	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	***	YES
GENITOURINARY TRACT		YES	***	YES
TESTES (MALE)		YES	***	YES
KIDNEY		YES	***	YES
LIVER		YES	***	YES
MUCOUS MEMBRANES		YES	***	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	***	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	***	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
SUBSTANCE(S) SUSPECTED HUMAN MUTAGENIC/FETOTOXIC EFFECTS		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

**PROGRAM DESCRIPTION:**

\*\*\*Physical exam elements are given when positive answers on annual history questions are obtained. REFERENCES: (1); (2); (OTHER); 1. NIOSH Criteria For a Recommended Standard...Occupational Exposure to Waste Anesthetic Gases and Vapors. DHEW Publication No. 77-140; 2. Williams, Louise A., REPRODUCTIVE HEALTH HAZARDS IN THE WORKPLACE, J.B. Lippincott Company, Philadelphia, 1988. PROGRAM REVISED 8/90.

---

207 ANIMAL ASSOCIATED DISEASE

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
INFECTIOUS DISEASE		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
CHANGE IN FREQUENCY OR APPEARANCE OF BOWEL MOVEMENTS		YES	ANNUAL	NO
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
ADDITIONAL LAB TESTS:				
TUBERCULOSIS SCREEN		YES	ANNUAL	NO
SERUM TO BE FROZEN		YES	PENTA-E	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
<b>QUALIFICATIONS:</b>				
CURRENT IMMUNIZATIONS		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (OTHER); Rivera JC, Bayer RA, Johnson DK. The National Institute of Health animal handlers medical surveillance program. J Occup Med 26(2):115-117, 1984. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

1. The pre-placement examination requirements and annual medical surveillance for animal-handlers requires individualization based on the type of animals handled and the potential risk to the handler.
2. Examples of individual requirements are:
  - a) Handlers working with rabies prone animals (cats, dogs, wild rodents, primates and some livestock) should have rabies immunizations.
  - b) Women of child-bearing age working with toxoplasmosis susceptible animals (cats, dogs and livestock) should be offered antibody screens and receive appropriate health education regarding the risk of this disease during pregnancy.
  - c) Q fever antibody titer should be obtained on all handlers working with livestock.
  - d) Other specific immunizations and antibody titer should be given or obtained on all animal-handlers working with specific infectious agents or with infected or potentially infected animals.
3. A serum sample from each animal-handler should be frozen as a baseline and then repeated every five years.
4. For guidelines on pre-placement requirements and periodic medical surveillance for specific animal exposures, contact the Navy Environmental Health Center or Navy Environmental and Preventive Medicine Unit nearest you.

## 109 ANTIMONY

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
ANTIMONY	CC4025000	7440-36-0
ANTIMONY TRIOXIDE (PRODUCTION)	CC5650000	1309-64-4
ANTIMONY TRIOXIDE (HANDLING & USE)	CC5650000	1309-64-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK? (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
EYE IRRITATION	YES	ANNUAL	YES
SHORTNESS OF BREATH	YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS	YES	ANNUAL	YES

## WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	YES
-----------------------	-----	--------	-----

## FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES
----------------------------	-----	--------	-----

COMMENTS ON MEDICAL HISTORY:

YES	ANNUAL	YES
-----	--------	-----

## LABORATORY-

## CARDIOLOGY-

ELECTROCARDIOGRAM	YES	NO	YES
-------------------	-----	----	-----

## RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	YES
------------------	-----	----	-----

COMMENTS ON LABORATORY RESULTS:

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
MUCOUS MEMBRANES		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH Criteria for a  
Recommended Standard...Occupational Exposure to Antimony, DHEW Pub No. 78-216.  
PROGRAM REVISED 8/90.

---

110 ANTINEOPLASTIC DRUGS

STRESSOR(S) IN THIS PROGRAM: N/A

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)	YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)	YES	ANNUAL	YES

WORK HISTORY OF:

EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS	YES	ANNUAL	YES
EXP TO IONIZING RADIATION	YES	ANNUAL	YES
EXP TO SKIN IRRITANTS	YES	ANNUAL	YES
EXP TO CARCINOGENS	YES	ANNUAL	YES

FAMILY HISTORY OF:

GENETIC DISEASE (INCLUDE CHILDREN)	YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES

COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES
------------------------------	-----	--------	-----

LABORATORY-

HEMATOLOGY:

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)	YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT	YES	ANNUAL	YES

URINALYSIS:

ROUTINE:

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>ADDITIONAL LAB TESTS:</b>				
PREGNANCY TESTING OR LABORATORY TESTING OF FERTILITY IF REQUESTED BY EMPLOYEE AND DEEMED APPROPRIATE BY THE PHYSICIAN		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
MUCOUS MEMBRANES		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
SKIN-WITH REGARD TO MALIGNANT & PRE-MALIGNANT COND		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
SUBSTANCE(S) KNOWN MUTAGENIC OR FETOTOXIC EFFECTS		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); OSHA Instruction PUB 8-1.1 29 Jan 86; NAVMEDCOMINST 6570.1, 29 May 86, ANTINEOPLASTIC DRUG GUIDELINES. PROGRAM REVISED 8/90.

111 ARSENIC 10+ YEARS EXPOSURE

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
CALCIUM ARSENATE	CG0830000	7778-44-1
LEAD ARSENATE	CG0990000	10102-48-4
ARSENIC (INORGANIC & SOLUBLE COMPOUNDS)	CG0525000	7440-38-2
ARSENIC TRIOXIDE PRODUCTION	CG3325000	1327-53-3

PROGRAM FREQUENCIES: SEMI ANNUAL

OSHA STANDARD 29 CFR 1910.1018

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	SEMI-A	YES
MAJOR ILLNESS OR INJURY	YES	SEMI-A	YES
HOSPITALIZATION OR SURGERY	YES	SEMI-A	YES
CANCER	YES	SEMI-A	YES
BACK INJURY	YES	SEMI-A	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	SEMI-A	YES
HAVE YOU EVER SMOKED	YES	SEMI-A	YES
DO YOU CURRENTLY SMOKE	YES	SEMI-A	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	SEMI-A	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	SEMI-A	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	SEMI-A	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	SEMI-A	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	SEMI-A	YES
SKIN DISEASE	YES	SEMI-A	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	SEMI-A	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	SEMI-A	YES
COUGHING UP BLOOD (HEMOPTYSIS)	YES	SEMI-A	YES
SHORTNESS OF BREATH	YES	SEMI-A	YES
COUGH (DRY OR PRODUCTIVE)	YES	SEMI-A	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	SEMI-A	YES

WORK HISTORY OF:

10 OR MORE YRS SINCE FIRST EXP TO ARSENIC	YES	SEMI-A	YES
---	-----	--------	-----

FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	SEMI-A	YES
----------------------------	-----	--------	-----

COMMENTS ON MEDICAL HISTORY:

	YES	SEMI-A	YES
--	-----	--------	-----

LABORATORY-

CYTOLOGY:

SPUTUM CYTOLOGY	YES	SEMI-A	YES
-----------------	-----	--------	-----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	SEMI-A	YES
COMMENTS ON LABORATORY RESULTS:		YES	SEMI-A	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	SEMI-A	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	SEMI-A	YES
CARDIOVASCULAR SYSTEM		YES	SEMI-A	YES
LIVER		YES	SEMI-A	YES
NASAL MUCOSA (SEPTAL PERFORATION)		YES	SEMI-A	YES
RESPIRATORY SYSTEM		YES	SEMI-A	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	SEMI-A	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	SEMI-A	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	SEMI-A	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	SEMI-A	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	SEMI-A	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	SEMI-A	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	SEMI-A	YES
RECOMMENDATIONS:		YES	SEMI-A	YES

#### PROGRAM DESCRIPTION:

When a specified examination has not been provided within six months preceding termination of employment, an examination must be provided upon termination of employment. REFERENCE: (OTHER); 1. 29 CFR 1910.1018; 2. 29 CFR 1910.134, Respiratory Protection 3. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards, U.S. Department of Health and Human Services, 1988; 4. Morgan DP. Recognition and Management of Pesticide Poisonings, Fourth Edition. United States Environmental Protection Agency. 1989:54-61; (1); 5. Klaassen CD, Amdur MO, Doull J. Cassarett and Doull's Toxicology, Third Edition. New York, NY: Macmillan Publishing Co. 1986:588-591; 6. International Agency For Research On Cancer. IARC Monographs On The Evaluation Of The Carcinogenic Risk Of Chemicals To Humans. Switzerland: World Health Organization. 1980:vol 23, 39-141. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Chest x-ray requires International Labor Office UICC/Cincinnati (ILO U/C) rating.

112 ARSENIC ANY EXPOSURE

STRESSOR(S) IN THIS PROGRAM:

CALCIUM ARSENATE

LEAD ARSENATE

ARSENIC (INORGANIC & SOLUBLE COMPOUNDS)

ARSENIC TRIOXIDE PRODUCTION

NIOSH #

CG0830000

CG0990000

CG0525000

CG3325000

CAS #

7778-44-1

10102-48-4

7440-38-2

1327-53-3

PROGRAM FREQUENCIES: ANNUAL

OSHA STANDARD 29 CFR 1910.1018

EXAM ELEMENT

ELEMENT GIVEN FOR:

BASE

PERI

TERM

LINE

ODIC

EXAM

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)

YES

ANNUAL

YES

MAJOR ILLNESS OR INJURY

YES

ANNUAL

YES

HOSPITALIZATION OR SURGERY

YES

ANNUAL

YES

CANCER

YES

ANNUAL

YES

BACK INJURY

YES

ANNUAL

YES

DO YOU DRINK 6 OR MORE DRINKS PER WEEK

YES

ANNUAL

YES

(BEER, WINE, LIQUOR)

HAVE YOU EVER SMOKED

YES

ANNUAL

YES

DO YOU CURRENTLY SMOKE

YES

ANNUAL

YES

HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE

YES

ANNUAL

YES

CURRENT MEDICATION USE (PRESCRIPTION OR OTC)

YES

ANNUAL

YES

ALLERGIES (INCLUDE MEDICATIONS)

YES

ANNUAL

YES

USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)

YES

ANNUAL

YES

ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)

YES

ANNUAL

YES

SKIN DISEASE

YES

ANNUAL

YES

LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)

YES

ANNUAL

YES

TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS

YES

ANNUAL

YES

COUGHING UP BLOOD (HEMOPTYSIS)

YES

ANNUAL

YES

SHORTNESS OF BREATH

YES

ANNUAL

YES

COUGH (DRY OR PRODUCTIVE)

YES

ANNUAL

YES

NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS

YES

ANNUAL

YES

WORK HISTORY OF:

10 OR MORE YRS SINCE FIRST EXP TO ARSENIC

YES

ANNUAL

YES

FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)

YES

ANNUAL

YES

COMMENTS ON MEDICAL HISTORY:

YES

ANNUAL

YES

LABORATORY-

CYTOLOGY:

SPUTUM CYTOLOGY

YES

NO

YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
NASAL MUCOSA (SEPTAL PERFORATION)		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

When a specified examination has not been provided within six months preceding termination of employment, an examination must be provided upon termination of employment. REFERENCE: (OTHER); 1. 29 CFR 1910.1018; 2. 29 CFR 1910.134, Respiratory Protection 3. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards, U.S. Department of Health and Human Services, 1988; 4. Morgan DP. Recognition and Management of Pesticide Poisonings, Fourth Edition. United States Environmental Protection Agency. 1989:54-61; (1); 5. Klaassen CD, Amdur MO, Doull J. Cassarett and Doull's Toxicology, Third Edition. New York, NY: Macmillan Publishing Co. 1986:588-591; 6. International Agency For Research On Cancer. IARC Monographs On The Evaluation Of The Carcinogenic Risk Of Chemicals To Humans. Switzerland: World Health Organization. 1980:vol 23, 39-141. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Chest x-ray requires International Labor Office UICC/Cincinnati (ILO U/C) rating.

113 ASBESTOS CURRENT WORKER - 10+ YEARS SINCE FIRST EXPOSURE

STRESSOR(S) IN THIS PROGRAM:  
ASBESTOS

NIOSH # CAS #  
CI6475000 1332-21-4

PROGRAM FREQUENCIES: ANNUAL

OSHA STANDARD 1910.1001

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
CHANGE IN FREQUENCY OR APPEARANCE OF BOWEL MOVEMENTS		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	YES
EXP TO ASBESTOS		YES	ANNUAL	YES
10 OR MORE YRS SINCE FIRST EXP TO ASBESTOS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (ASBESTOS)		YES	***	YES
UTILIZING FORM - NAVMED 6260/7		YES	***	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>QUALIFICATIONS:</b>				
RESPIRATORY PROTECTION		YES	ANNUAL	YES
COMPLETE NAVMED 6260/5, REV (5/90), PERIODIC HEALTH EVALUATION		YES	ANNUAL	YES
REVIEW DD 2493-1 INITIAL EXAM OR DD 2493-2 PERIODIC EXAM		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
COUNSELLING REGARDING THE COMBINED EFFECTS OF SMOKING AND ASBESTOS EXPOSURE		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

\*\*\*CHEST X-RAY (ASBESTOS) IS OBTAINED ON THE FOLLOWING FREQUENCY:

AGE OF EMPLOYEE	15 TO 35	35 TO 45	45+
FREQUENCY OF X-RAY	Every 5 years	Every 2 years	Every year

Examination is required within 30 calendar days before or after termination of employment, if not examined within the last year. REFERENCES: (OTHER); 1. 29 CFR 1910.1001; 2. OPNAVINST 5100.23B, Chapter 17; 3. OPNAVINST 5100.19B, Chapter B1. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

The Physician's Written Opinion is required by OSHA standard. A sample is included in Appendix F, F-1. Amendment to the Standard (55FR 3724) requires that the employee be counselled regarding the increased risk of lung cancer attributable to the combined effects of smoking and asbestos exposure and that this be part of the Physician's Written Opinion.

Appendix H contains recommendations from the American Cancer Society for performing the Hemoccult II.

114 ASBESTOS CURRENT WORKER - 0 TO 10 YEARS SINCE FIRST EXPOSURE

STRESSOR(S) IN THIS PROGRAM:  
ASBESTOS

NIOSH # CAS #  
CI6475000 1332-21-4

PROGRAM FREQUENCIES: ANNUAL

OSHA STANDARD 1910.1001

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
CHANGE IN FREQUENCY OR APPEARANCE OF BOWEL MOVEMENTS		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	YES
EXP TO ASBESTOS		YES	ANNUAL	YES
10 OR MORE YRS SINCE FIRST EXP TO ASBESTOS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (ASBESTOS)		YES	PENTA-E	YES
UTILIZING FORM - NAVMED 6260/7		YES	PENTA-E	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>QUALIFICATIONS:</b>				
RESPIRATORY PROTECTION		YES	ANNUAL	YES
COMPLETE NAVMED 6260/5, REV (5/90), PERIODIC HEALTH EVALUATION		YES	ANNUAL	YES
REVIEW DD 2493-1 INITIAL EXAM OR DD 2493-2 PERIODIC EXAM		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
COUNSELLING REGARDING THE COMBINED EFFECTS OF SMOKING AND ASBESTOS EXPOSURE		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

Examination is required within 30 calendar days before or after termination of employment, if not examined within the last year. REFERENCES: (OTHER); 1. 29 CFR 1910.1001; 2. OPNAVINST 5100.23B, Chapter 17; 3. OPNAVINST 5100.19B, Chapter B1. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

The Physician's Written Opinion is required by OSHA standard. A sample is included in Appendix F, F-1. Amendment to the Standard (55FR 3724) requires that the employee be counselled regarding the increased risk of lung cancer attributable to the combined effects of smoking and asbestos exposure and that this be part of the Physician's Written Opinion.

Appendix H contains recommendations from the American Cancer Society for performing the Hemocult II.

115 ASBESTOS PAST WORKER 10+ YEARS SINCE FIRST EXP

PROGRAM FREQUENCY: AGE DEPENDENT

OSHA STANDARD 29 CFR 1910.1001

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	***	YES
MAJOR ILLNESS OR INJURY		YES	***	YES
HOSPITALIZATION OR SURGERY		YES	***	YES
CANCER		YES	***	YES
BACK INJURY		YES	***	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	***	YES
HAVE YOU EVER SMOKED		YES	***	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	***	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	***	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	***	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	***	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	***	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	***	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	***	YES
SHORTNESS OF BREATH		YES	***	YES
COUGH (DRY OR PRODUCTIVE)		YES	***	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	***	YES
CHANGE IN FREQUENCY OR APPEARANCE OF BOWEL MOVEMENTS		YES	***	YES
<b>WORK HISTORY OF:</b>				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	***	YES
EXP TO ASBESTOS		YES	***	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	***	YES
COMMENTS ON MEDICAL HISTORY:		YES	***	YES
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (ASBESTOS)		YES	***	YES
UTILIZING FORM - NAVMED 6260/7		YES	***	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	***	YES
COMMENTS ON LABORATORY RESULTS:		YES	***	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	***	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	***	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	***	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	***	YES
COMPLETE NAVMED 6260/5, Rev (5/90), PERIODIC HEALTH EVALUATION				
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	***	YES
COUNSELLING REGARDING THE COMBINED EFFECTS OF SMOKING AND ASBESTOS EXPOSURE		YES	***	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	***	YES
RECOMMENDATIONS:		YES	***	YES

**PROGRAM DESCRIPTION:**

**\*\*\*FREQUENCY OF EXAMINATION**

AGE OF EMPLOYEE	15 TO 35	35 TO 44	45+
FREQUENCY OF EXAM	Every 5 years	Every 2 years	Every year

An asbestos chest x-ray and spirometry are obtained with each examination. Examination is required within 30 calendar days before or after termination of employment, if not examined within the last year. REFERENCES: (OTHER); 1. 29 CFR 1910.1001; 2. OPNAVINST 5100.23B, Chapter 17; 3. OPNAVINST 5100.19B, Chapter B1. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Amendment to the Standard (55FR 3724) requires that the employee be counselled regarding the increased risk of lung cancer attributable to the combined effects of smoking and asbestos exposure.

Appendix H contains recommendations from the American Cancer Society for performing the Hemocult II.

116 ASBESTOS PAST WORKER - 0 TO 10 YEARS SINCE FIRST EXPOSURE

PROGRAM FREQUENCY: PENTA-ENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	PENTA-E	YES
MAJOR ILLNESS OR INJURY	YES	PENTA-E	YES
HOSPITALIZATION OR SURGERY	YES	PENTA-E	YES
CANCER	YES	PENTA-E	YES
BACK INJURY	YES	PENTA-E	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	PENTA-E	YES
HAVE YOU EVER SMOKED	YES	PENTA-E	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	PENTA-E	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	PENTA-E	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	PENTA-E	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	PENTA-E	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	PENTA-E	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	PENTA-E	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	PENTA-E	YES
SHORTNESS OF BREATH	YES	PENTA-E	YES
COUGH (DRY OR PRODUCTIVE)	YES	PENTA-E	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS	YES	PENTA-E	YES
CHANGE IN FREQUENCY OR APPEARANCE OF BOWEL MOVEMENTS	YES	PENTA-E	YES

WORK HISTORY OF:

EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)	YES	PENTA-E	YES
EXP TO ASBESTOS	YES	PENTA-E	YES
10 OR MORE YRS SINCE FIRST EXP TO ASBESTOS	YES	PENTA-E	YES

FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	PENTA-E	YES
----------------------------	-----	---------	-----

COMMENTS ON MEDICAL HISTORY:

YES PENTA-E YES

LABORATORY-

RADIOLOGY-

CHEST X-RAY (ASBESTOS)	YES	PENTA-E	YES
UTILIZING FORM - NAVMED 6260/7	YES	PENTA-E	YES

SPIROMETRY-

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	PENTA-E	YES
----------------------------------	-----	---------	-----

COMMENTS ON LABORATORY RESULTS:

YES PENTA-E YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	PENTA-E	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	PENTA-E	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	PENTA-E	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	PENTA-E	YES
COMPLETE NAVMED 6260/5, REV (5/90), PERIODIC HEALTH EVALUATION				
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	PENTA-E	YES
COUNSELLING REGARDING THE COMBINED EFFECTS OF SMOKING AND ASBESTOS EXPOSURE		YES	PENTA-E	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	PENTA-E	YES
RECOMMENDATIONS:		YES	PENTA-E	YES

#### PROGRAM DESCRIPTION:

Examination is required within 30 calendar days before or after termination of employment, if not examined within the last year. REFERENCES: (OTHER); 1. 29 CFR 1910.1001; 2. OPNAVINST 5100.23B, Chapter 17; 3. OPNAVINST 5100.19B, Chapter B1. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Amendment to the Standard (55FR 3724) requires that the employee be counselled regarding the increased risk of lung cancer attributable to the combined effects of smoking and asbestos exposure.

Appendix H contains recommendations from the American Cancer Society for performing the Hemocult II.

## 117 BENZENE

STRESSOR(S) IN THIS PROGRAM:  
BENZENE

NIOSH # CAS #  
CY1400000 71-43-2

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1028

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO BENZENE		YES	ANNUAL	YES
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	YES
EXP TO IONIZING RADIATION		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
GENETIC DISEASE (INCLUDE CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES
PLATELET COUNT		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM		YES	ANNUAL	YES
ABDOMEN		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

**PROGRAM DESCRIPTION:**

REFERENCE: (OTHER); 1. 29 CFR 1910.1028; 2. Goesline, BD, Biological and ambient monitoring of benzene in the workplace, Journal of Medicine, 1986, 28 (10):1051. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Guidance on referrals and mandatory removal are contained in 29 CFR 1910.1028. For all workers required to wear respirators for at least 30 days a year, cardiopulmonary examination and spirometry are required on initial examination and every three years.

## 118 BENZIDINE

STRESSOR(S) IN THIS PROGRAM:  
BENZIDINE

NIOSH # CAS #  
DC9625000 92-87-5

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1010

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
GENETIC DISEASE (INCLUDE CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>CYTOLOGY:</b>				
URINE CYTOLOGY		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
GENITOURINARY TRACT		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCE: (1); (2); (OTHER); 29 CFR 1910.1010. PROGRAM REVIEWED 8/90.

## 121 BERYLLIUM

STRESSOR(S) IN THIS PROGRAM:  
BERYLLIUM

NIOSH # CAS #  
DS1750000 7440-41-7

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
PNEUMONIA		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)		YES	ANNUAL	YES
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

---

178 BLOOD AND/OR BODY FLUIDS

PROGRAM FREQUENCY: BASELINE ONLY

OSHA PROPOSED STANDARD

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE
MEDICAL HISTORY:		
PERSONAL HISTORY OF:		
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES
MAJOR ILLNESS OR INJURY		YES
HOSPITALIZATION OR SURGERY		YES
CANCER		YES
BACK INJURY		YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES
HAVE YOU EVER SMOKED		YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES
ALLERGIES (INCLUDE MEDICATIONS)		YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES
WORK HISTORY OF:		
EXP TO POTENTIALLY INFECTIOUS BODY FLUIDS		YES
COMMENTS ON MEDICAL HISTORY:		YES
PHYSICAL EXAMINATION:		
VITAL SIGNS		YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES
COMMENTS ON PHYSICAL EXAMINATION:		YES
QUALIFICATIONS:		
IS HEPATITIS B VACCINE SERIES COMPLETE OR PRIOR INFECTION DOCUMENTED?		YES
SPECIAL NOTATIONS:		
ASSESS THE EXAMINEE'S KNOWLEDGE OF UNIVERSAL BLOOD/ BODY FLUID PRECAUTIONS		YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES
RECOMMENDATIONS:		YES

#### PROGRAM DESCRIPTION:

This program does not have a periodic frequency. All tests are given for baseline physical exams and for any incident of exposure to potentially infectious materials. Exposure incident means a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact. REFERENCES: (OTHER); 1. U. S. Department of Labor. Occupational exposure to bloodborne pathogens; proposed rule and notice of hearing. Federal Register. May 30, 1989; 54(102):23137. 2. NIOSH Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health care and public safety workers, 1989, DHHS (NIOSH) Publication Number 89-107; 3. Lewy R. Organization and conduct of a hospital occupational health service, 1987, Occupational Medicine: State of the Art Reviews 2(3): 617-649. 4. MMWR Vol 38/S-6, Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health care and public-safety workers US Dept of HHS, Public Health Service, CDC, June 23 1989. 5. MMWR Vol 39/No.RR-1, Public Health Service Statement on Management of Occupational Exposure to Human Immunodeficiency Virus, Including Considerations Regarding Zidovudine Postexposure Use, US Dept of HHS, Public Health Service CDC, January 26, 1990. 6. COMNAVMEDCOM, Washington ltr 6220:6310/9 Ser 24/0301 of 31 March 89. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

A sample physician's written opinion can be found in Appendix F, F-3.

Individuals entered in this program are those who have the potential for exposure to blood and/or body fluids.

Current national guidelines regarding the postexposure management and reporting requirements for exposure incidents involving Hepatitis B or HIV are detailed in References 2 and 4. Guidelines regarding the use of zidovudine post HIV exposure are in Reference 5. Occupational Health staff managing exposure incidents involving HIV should have reference 5 and 2 or 4 on hand as well as current recommendations issued by NEHC, the nearest NEPMU or the Infectious Disease Department at Navy MTF's.

Category II exposure includes persons performing tasks that involve no exposure to blood or body fluids or tissues, but whose employment may require performing unplanned Category I tasks. This category may include firefighters, police officers, ambulance and correctional workers. Hepatitis B vaccine is not generally recommended for these workers (Reference 6). Employees occupationally exposed on an average of one or more times per month to blood or other potentially infectious materials are recommended candidates for HBV series (reference 1).

## 122 BORON TRIFLUORIDE

STRESSOR(S) IN THIS PROGRAM:  
BORON TRIFLUORIDE

NIOSH # CAS #  
ED2275000 7637-07-2

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO
SPIROMETRY:				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3). PROGRAM REVISED 8/90.

## STRESSOR(S) IN THIS PROGRAM:

CADMIUM (DUST AND SALTS)	NIOSH #	CAS #
CADMIUM OXIDE (FUME)	EU9800000	7440-43-9
CADMIUM OXIDE (PRODUCTION)	EV1930000	1306-19-0
CADMIUM SULFIDE	EV1925000	1306-19-0
CADMIUM SULFATE	EV3150000	1306-23-6
CADMIUM NITRATE	EV2700000	10124-36-4
CADMIUM FLUOBORATE	EV1750000	10325-94-7
CADMIUM CHLORIDE	EV0525000	14486-19-2
CADMIUM CARBONATE	EV0175000	10108-64-2
	FF9320000	513-78-0

PROGRAM FREQUENCY: ANNUAL

## OSHA PROPOSED RULE

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOU WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
BLOOD DISEASES (ANEMIA)	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)	YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	YES
LIVER DISEASE	YES	ANNUAL	YES
KIDNEY DISEASE	YES	ANNUAL	YES
BONE PROBLEMS (BROKEN BONES)	YES	ANNUAL	YES

## WORK HISTORY OF:

EXPOSURE TO CADMIUM	YES	ANNUAL	YES
---------------------	-----	--------	-----

## FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES
----------------------------	-----	--------	-----

## COMMENTS ON MEDICAL HISTORY:

	YES	ANNUAL	YES
--	-----	--------	-----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITHOUT MICROSCOPIC		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
KIDNEY		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); Testimony regarding the proposed rule on occupational exposure to cadmium, OSHA Docket H-057a, June 1990.  
PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

OSHA Instruction PUB 8-1,4A (SEPT 26 1988) states medical surveillance is essential in preventing cadmium related disease but does not specify elements of a cadmium medical surveillance program. OSHA is expected to issue a 6(B) rule in 1991 which will specify medical surveillance elements for cadmium exposed workers.

## 125 CARBON BLACK

STRESSOR(S) IN THIS PROGRAM:  
CARBON BLACK

NIOSH # CAS #  
FF5800000 1333-86-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO CARCINOGENS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (2); (3); (4). PROGRAM REVISED 8/90.

## 126 CARBON DISULFIDE

STRESSOR(S) IN THIS PROGRAM:  
CARBON DISULFIDE

NIOSH # CAS #  
FF6650000 75-15-0

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NAUSEA OR VOMITING		YES	ANNUAL	NO
TREMORS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
GLAUCOMA		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
FAMILY HISTORY OF:				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
SERUM CHEMISTRY:				
BUN AND CREATININE		YES	ANNUAL	NO
CHOLESTEROL		YES	ANNUAL	NO
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
VISUAL FIELDS		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVIEWED 8/90.

## 127 CARBON MONOXIDE

STRESSOR(S) IN THIS PROGRAM:  
CARBON MONOXIDE

NIOSH # CAS #  
FG3500000 630-08-0

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	NO
FAMILY HISTORY OF:				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	NO	NO
SERUM CHEMISTRY:				
CHOLESTEROL		YES	NO	NO
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

## 128 CARBON TETRACHLORIDE

STRESSOR(S) IN THIS PROGRAM:  
CARBON TETRACHLORIDE

NIOSH # CAS #  
FG4900000 56-23-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
USE OF BARBITURATES		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
NAUSEA OR VOMITING		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
SGOT (AST)		YES	ANNUAL	YES
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

## 130 CHLOROFORM

STRESSOR(S) IN THIS PROGRAM:  
CHLOROFORM

NIOSH # CAS #  
FS9100000 67-66-3

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CYTOTOXIC (DRUGS)		YES	ANNUAL	YES
USE OF BARBITURATES		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
NAUSEA OR VOMITING		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
MIGRAINE HEADACHE		YES	ANNUAL	YES
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	ANNUAL	YES
BUN AND CREATININE		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	NO	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
ABDOMEN		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
<b>IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON</b>				
OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (2); (3); (4). PROGRAM REVISED 8/90.

131 BIS-CHLOROMETHYL ETHER

STRESSOR(S) IN THIS PROGRAM:  
BIS-CHLOROMETHYL ETHER

NIOSH # CAS #  
KN1575000 542-88-1

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1008

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM OVAL
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY):		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCE: (OTHER) 29 CFR 1910.1008. PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
BETA-CHLOROPRENE

NIOSH # CAS #  
E19625000 126-99-8

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
MIGRAINE HEADACHE		YES	ANNUAL	YES
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN MUTAGENIC/FETOTOXIC EFF.		YES	ANNUAL	YES
<b>IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON</b>				
OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

133 CHROMIC ACID/CHROMIUM (VI)

STRESSOR(S) IN THIS PROGRAM:

CHROMIC ACID  
CHROMITE ORE PROCESSING (CHROMATE)  
ZINC CHROMATE  
SODIUM DICHROMATE  
CHROMIUM (VI) WATER SOLUBLE  
CHROMIUM (VI) WATER INSOLUBLE  
LEAD CHROMATE  
TERT-BUTYL CHROMATE  
SODIUM CHROMATE  
POTASSIUM CHROMATE  
CHROMIUM PHOSPHATE  
CHROMIUM CARBONYL  
ZINC CHROMATE HYDROXIDE  
CHROMIUM OXIDE  
STRONTIUM CHROMATE  
CALCIUM CHROMATE  
BARIUM CHROMATE  
ZINC POTASSIUM CHROMATE  
ZINC YELLOW

NIOSH #	CAS #
GB2450000	7738-94-5
GA9120000	13907-47-6
GB3290000	13530-65-9
HX7700000	10588-01-9
GB4200000	7440-47-3
GB4200000	7440-47-3
GB2975000	7758-97-6
GB2900000	1189-85-1
GB2955000	7775-11-3
GB2940000	7789-00-6
GB6840000	7789-04-0
GB5075000	13007-92-6
GB3260000	15930-94-6
GB6650000	1333-82-0
GB3240000	7789-06-2
GB2750000	13765-19-0
CQ8760000	10294-40-3
GA9170000	1103-86-9
	37300-23-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT

ELEMENT GIVEN FOR:

BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
PERFORATION OF NASAL SEPTUM	YFS	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)	YES	ANNUAL	YES
SHORTNESS OF BREATH	YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	YES
KIDNEY DISEASE	YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>WORK HISTORY OF:</b>				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	YES
EXP TO CHROMIUM OR CHROMIC ACID		YES	ANNUAL	YES
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
KIDNEY		YES	ANNUAL	YES
MUCOUS MEMBRANES		YES	ANNUAL	YES
NASAL MUCOSA (SEPTAL PERFORATION)		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Beginning at the tenth year of exposure the chest x-ray may be indicated annually depending on the individual's work exposure, smoking status and work habits.

134 COAL TAR PITCH VOL./POLYCYCLIC AROMATIC HYDROCARB.

STRESSOR(S) IN THIS PROGRAM: N/A

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1002, 1910.1029

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER(CYTOTOXIC) DRUGS		YES	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
PNEUMONIA		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
MUCOUS MEMBRANES		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC.)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (OTHER); 1. 29 CFR 1910.1002; 2. 29 CFR 1910.1029; 3. Polycyclic Aromatic Hydrocarbons, Fifth Annual Report on Carcinogens, Summary 1989, U.S. Department of Health and Human Services Public Health Service, Rockville, MD, Technical Resources, Inc. 1989:242-246.  
PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
COBALT (METAL FUME AND DUST)

NIOSH # CAS #  
GF8750000 7440-48-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXPOSURE TO SKIN IRRITANTS				
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>CARDIOLOGY</b>				
ELECTROCARDIOGRAM		YES	NO	NO
<b>RADIOLOGY</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC.)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY):		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2). PROGRAM REVISED 8/90.

## STRESSOR(S) IN THIS PROGRAM:

CRESOL (O, M, P-MIXTURE)

M-CRESOL

O-CRESOL

P-CRESOL

2,6-DITERT-BUTYL-P-CRESOL

4,4'-THIOBIS(6-TERT-BUTYL-M-CRESOL)

## NIOSH #

GO5950000

GO6125000

GO6300000

GO6475000

GO7875000

GP3150000

## CAS #

1319-77-3

108-39-4

95-48-7

106-44-5

128-37-0

96-69-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NAUSEA OR VOMITING		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

137 1,2-DIBROMO-3-CHLOROPROPANE (DBCP)

STRESSOR(S) IN THIS PROGRAM:  
1,2-DIBROMO-3-CHLOROPROPANE

NIOSH # CAS #  
TX8750000 96-12-8

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1044

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
SKIN DISEASES		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY</b>				
<b>SERUM CHEMISTRY:</b>				
SERUM TOTAL ESTROGEN (FEMALE)		YES	ANNUAL	YES
SERUM FOLLICLE STIMULATING HORMONE (FSH)		YES	ANNUAL	YES
SERUM LUTEINIZING HORMONE (LH)		YES	ANNUAL	YES
<b>ADDITIONAL LAB TESTS:</b>				
SPERM COUNT (MALE)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:		YES	ANNUAL	YES
GU (INCLUDING TESTICLE SIZE)		YES	ANNUAL	YES
BODY HABITUS		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (OTHER); 1. 29 CFR 1910.1044; 2. Journal of Occupational Medicine 32(10) 979-984, 1990. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Use of 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) as a fumigant in the U.S. has been banned by the EPA. Limited manufacturing may still be occurring.

Medical surveillance is to be made available in regulated areas and to workers exposed to DBCP in emergency situations. The OSHA standard on DBCP does not apply to: 1) exposure to DBCP which results solely from the application and use of DBCP as a pesticide; or 2) the storage, transportation, distribution, or sale of DBCP in intact containers sealed in such a manner as to prevent exposure to DBCP vapors or liquids.

## 138 3,3'-DICHLOROBENZIDINE

STRESSOR(S) IN THIS PROGRAM:  
3,3'-DICHLOROBENZIDINE

NIOSH # CAS #  
DD0525000 91-94-1

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1007

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
GENITOURINARY TRACT		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCE: (OTHER); 29 CFR 1910.1007. PROGRAM REVISED 8/90.

## 139 4-DIMETHYLAMINOAZOBENZENE

STRESSOR(S) IN THIS PROGRAM:  
4-DIMETHYLAMINOAZOBENZENE

NIOSH # CAS #  
BX7350000 60-11-7

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1015

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); 29 CFR 1910.1015. PROGRAM REVISED 8/90.

## 140 DINITRO-ORTHO-CRESOL

STRESSOR(S) IN THIS PROGRAM:  
DINITRO-O-CRESOL

NIOSH # CAS #  
GO9625000 534-52-1

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	NO
WEIGHT LOSS		YES	ANNUAL	NO
CATARACTS		YES	ANNUAL	NO
GLAUCOMA		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	NO
DEPRESSION, DIFFICULTY CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
ABDOMEN		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
THYROID		YES	ANNUAL	NO
METABOLIC DISTURBANCE (FEVER, TACHYCARDIA)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (3); (OTHER); 1. NIOSH criteria for a recommended standard... Occupational Safety and Health Guideline for Dinitro-ortho-cresol, NIOSH Pub. No. 89-104, Supplement II-CHG; 2. Hayes WJ, Pesticides Studied in Man, Baltimore: Williams and Wilkins; 1982:466-470. PROGRAM REVISED 8/90.

## 141 DIOXANE

STRESSOR(S) IN THIS PROGRAM:  
DIOXANE

NIOSH # CAS #  
JG8225000 123-91-1

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (3); (4); (OTHER); NIOSH criteria for a recommended standard...occupational exposure to dioxane, DHEW Pub. No. 77-226. PROGRAM REVISED 8/90.

## 142 EPICHLOROHYDRIN

STRESSOR(S) IN THIS PROGRAM:  
EPICHLOROHYDRIN

NIOSH # CAS #  
TX4900000 106-89-8

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard... occupational exposure to Epichlorohydrin, DHEW Pub. No. 76-206. PROGRAM REVIEWED 8/90.

143 ETHOXY AND METHOXY ETHANOL

STRESSOR(S) IN THIS PROGRAM:  
2-ETHOXYETHANOL  
2-METHOXYETHANOL

NIOSH # CAS #  
KK8050000 110-80-5  
KL5775000 109-86-4

PROGRAM FREQUENCIES: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
<b>FAMILY HISTORY OF:</b>				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NC
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
GENITOURINARY TRACT		YES	ANNUAL	NO
TESTES (MALE)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN MUTAGENIC OR FETOTOXIC EFFECTS		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4); (OTHER); The Glycol Ethers, with Particular Reference to 2-Methoxyethanol and 2-Ethoxyethanol: Evidence of Adverse Reproductive Effects, NIOSH Current Intelligence Bulletin 39, DHEW (NIOSH) Pub. No. 83-112. PROGRAM REVIEWED 8/90.

## 145 ETHYLENE DIBROMIDE

STRESSOR(S) IN THIS PROGRAM:  
ETHYLENE DIBROMIDE

NIOSH #      CAS #  
KH9275000    106-93-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOU WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
SUBSTANCE(S) KNOWN MUTAGENIC OR FETOTOXIC EFFECTS		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH Criteria for a recommended standard... occupational exposure to Ethylene Dibromide, NIOSH Pub. No. 77-221. PROGRAM REVIEWED 8/90.

## 146 ETHYLENE DICHLORIDE

STRESSOR(S) IN THIS PROGRAM:  
ETHYLENE DICHLORIDE

NIOSH # CAS #  
KI0525000 107-06-2

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
WEIGHT LOSS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...occupational exposure to Ethylene Dichloride, NIOSH Pub. No. 76-139. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Ethylene dichloride is a central nervous system depressant and causes injury to the liver and kidneys. Animal studies indicate that it has little ability to adversely affect the reproductive or developmental processes except at maternally toxic levels.(3)

STRESSOR(S) IN THIS PROGRAM:  
ETHYLENE OXIDE

NIOSH # CAS #  
KX2450000 75-21-8

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1047

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	YES
EXP TO ANESTHETIC GASES		YES	ANNUAL	YES
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
SGOT (AST)		YES	PENTA-E	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	PENTA-E	YES
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
GENITOURINARY TRACT		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
SUBSTANCE(S) SUSPECTED HUMAN MUTAGENIC/FETOTOXIC EFFECTS		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (1); (2); (3); (OTHER); 1. NIOSH Current Intelligence Bulletin #35, Ethylene Oxide; 2. 29 CFR 1919.1047. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Refer to 29 CFR 1910.1047 for exams required following acute exposure or for exams with positive findings.

A Physician's Written Opinion is required by OSHA Standard. A sample Physician's Written Opinion can be found in Appendix F, F-4.

Positive responses to medical history questions pertaining to the reproductive system may require further investigation.

## 149 ETHYLENEIMINE

STRESSOR(S) IN THIS PROGRAM:  
ETHYLENEIMINE

NIOSH # CAS #  
KX5075000 151-56-4

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1012

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
SGOT (AST)		YES	ANNUAL	YES
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	REM OVAL
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); 1. NIOSH OSH Guidelines to Chemical Hazards Supplement #2, U.S. Dept. of HHS, Public Health Service, CDC, NIOSH, division of Standards Development, Cincinnati, OH 1988; 2. OSHA STANDARD 29 CFR 1910.1012. PROGRAM REVISED 8/90.

150 FLUORIDES (INORGANIC)

STRESSOR(S) IN THIS PROGRAM:

FLUORIDES

CALCIUM FLUORIDE

CARBONYL FLUORIDE

PERCHLORYL FLUORIDE

SULFURYL FLUORIDE

FLUORINE

HYDROGEN FLUORIDE

NIOSH #

LM6290000

EW1760000

FG6125000

SD1925000

WT5075000

LM6475000

MW7875000

CAS #

16984-48-8

7789-75-5

353-50-4

7616-94-6

2699-79-8

7782-41-4

7664-39-2

PROGRAM FREQUENCIES: ANNUAL

EXAM ELEMENT

ELEMENT GIVEN FOR:

BASE

PERI

TERM

LINE

ODIC

EXAM

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)

YES

ANNUAL

NO

MAJOR ILLNESS OR INJURY

YES

ANNUAL

NO

HOSPITALIZATION OR SURGERY

YES

ANNUAL

NO

CANCER

YES

ANNUAL

NO

BACK INJURY

YES

ANNUAL

NO

DO YOU DRINK 6 OR MORE DRINKS PER WEEK

YES

ANNUAL

NO

(BEER, WINE, LIQUOR)

HAVE YOU EVER SMOKED

YES

ANNUAL

NO

DO YOU CURRENTLY SMOKE (PACKS/DAY)

YES

ANNUAL

NO

HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE

YES

ANNUAL

NO

CURRENT MEDICATION USE (PRESCRIPTION OR OTC)

YES

ANNUAL

NO

ALLERGIES (INCLUDE MEDICATIONS)

YES

ANNUAL

NO

USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)

YES

ANNUAL

NO

ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)

YES

ANNUAL

NO

SKIN DISEASE

YES

ANNUAL

NO

HEPATITIS OR JAUNDICE

YES

ANNUAL

NO

LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)

YES

ANNUAL

NO

CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS

YES

ANNUAL

NO

KIDNEY DISEASE

YES

ANNUAL

NO

MUSCLE OR JOINT PROBLEMS

YES

ANNUAL

NO

WORK HISTORY OF:

EXP TO HYDROGEN FLUORIDE OR INORGANIC FLUORIDES

YES

ANNUAL

NO

EXP TO SKIN IRRITANTS

YES

ANNUAL

NO

EXP TO RESPIRATORY IRRITANTS

YES

ANNUAL

NO

COMMENTS ON MEDICAL HISTORY:

YES

ANNUAL

NO

LABORATORY-

SERUM CHEMISTRY:

BUN AND CREATININE

YES

ANNUAL

NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
URINE FLUORIDE - POST SHIFT		YES	***	NO
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
TEETH (ACID EROSION)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Inorganic Fluorides DHEW Pub. No. 76-103.  
PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

A preplacement spot urine fluoride is obtained for a baseline as an indicator of body burden. (Reference DHEW Pub. No. 76-103)

\*\*\*At the time of the periodic examination, evaluate the need to perform a urine fluoride test. Postshift examination of the urine fluoride reflects recent exposure (in the preceding hours) and is not useful for biological monitoring if the employee has not been exposed to fluoride. The best time to obtain the urine specimen is at the end of a work week after the employee has been involved in tasks with fluoride exposure during that week. Because of the episodic exposure of most employees, the laboratory work obtained for the annual medical surveillance may not coincide with an exposure period. Ideally, the biological monitoring should be collected at the same time the Industrial Hygienist collects environmental samples.

## 151 FORMALDEHYDE

STRESSOR(S) IN THIS PROGRAM:  
FORMALDEHYDE

NIOSH # CAS #  
LP8925000 50-00-0

PROGRAM FREQUENCY: ANNUAL (SEE PROVIDER COMMENTS)

OSHA STANDARD 29 CFR 1910.1048

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
CONTACT LENS USE		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
COUGHING UP BLOOD (HEMOPTYSIS)		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	YES
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
MUCOUS MEMBRANES		YES	ANNUAL	YES
NASAL MUCOSA (SEPTAL PERFORATION)		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED				
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (OTHER); 29 CFR 1910.1048; NIOSH criteria for a recommended standard...Occupational Exposure to Formaldehyde DHEW Pub. No. 77-186.  
PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

The OSHA standard requires an annual medical examination for all workers whose exposure requires use of respirators for protection. For those workers whose exposure does not require a respirator, the examiner shall review the medical and work history and determine whether an examination is required. The OSHA standard requires annual spirometry for all exposed workers who wear respirators.

A Physician's Written Opinion is required by OSHA Standard. A sample Physician's Written Opinion can be found in APPENDIX F, F-5.

## 152 GLYCIDYL ETHERS

STRESSOR(S) IN THIS PROGRAM:  
 RESORCINOL DIGLYCIDYL ETHER  
 ALLYL GLYCIDYL ETHER  
 ISOPROPYL GLYCIDYL ETHER  
 DIGLYCIDYL ETHER  
 PHENYL GLYCIDYL ETHER  
 N-BUTYL GLYCIDYL ETHER  
 GLYCIDOL

NIOSH #	CAS #
VH1050000	101-90-6
RR0875000	106-92-3
TZ3500000	4016-14-2
KN2350000	2238-07-5
TZ3675000	122-60-1
TX4200000	2426-08-6
UB4375000	556-52-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
EYE IRRITATION	YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)	YES	ANNUAL	NO

WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO

COMMENTS ON MEDICAL HISTORY:

	YES	ANNUAL	NO
--	-----	--------	----

LABORATORY-

RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	NO
------------------	-----	----	----

COMMENTS ON LABORATORY RESULTS:

	YES	NO	NO
--	-----	----	----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4). PROGRAM REVISED 8/90.

## 216     HERBICIDES

STRESSOR(S) IN THIS PROGRAM:  
PARAQUAT  
DIQUAT

NIOSH #                    CAS #  
                            4685-14-7  
                            85-00-7

PROGRAM FREQUENCY:    ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO

## LABORATORY-

## RADIOLOGY:

CHEST X-RAY (PA)	YES	NO	NO
------------------	-----	----	----

## SPIROMETRY:

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO
----------------------------------	-----	--------	----

COMMENTS ON LABORATORY RESULTS

YES	ANNUAL	NO
-----	--------	----

## PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	NO
-------------	-----	--------	----

## SPECIAL ATTENTION IN EXAMINATION TO:

EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)	YES	ANNUAL	NO
--	-----	--------	----

RESPIRATORY SYSTEM	YES	ANNUAL	NO
--------------------	-----	--------	----

SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)	YES	ANNUAL	NO
---	-----	--------	----

OTHER APPROPRIATE EXAMINATION (SPECIFY):	YES	ANNUAL	NO
--	-----	--------	----

COMMENTS ON PHYSICAL EXAMINATION:

YES	ANNUAL	NO
-----	--------	----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

References: (1); (3); (OTHER); 1. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards, U.S. Department Of Health And Human Services, Sept.1978; 2. Morgan DP. Recognition and Management of Pesticide Poisonings, Fourth Edition. United States Environmental Protection Agency. 1989:76-82; 3. Klaassen CD, Amdur MO, Doull J. Cassarett And Doull's Toxicology, Third Edition. New York, NY: Macmillan Publishing Co. 1986:556-557. NEW PROGRAM 11/90.

## 155      HYDRAZINES

## STRESSOR(S) IN THIS PROGRAM:

1,1-DIMETHYLHYDRAZINE  
HYDRAZINE  
PHENYLHYDRAZINE  
METHYL HYDRAZINE

NIOSH #	CAS #
MV2450000	57-14-7
MV7175000	302-01-2
MV8925000	100-63-0
MV5600000	60-34-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
HEPATITIS OR JAUNDICE	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	YES
EYE IRRITATION	YES	ANNUAL	YES
KIDNEY DISEASE	YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	YES
THYROID DISEASE (HEAT OR COLD INTOLERANCE)	YES	ANNUAL	YES

WORK HISTORY OF:

EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS	YES	ANNUAL	YES
EXP TO SKIN IRRITANTS	YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	YES

FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES
----------------------------	-----	--------	-----

COMMENTS ON MEDICAL HISTORY:

	YES	ANNUAL	YES
--	-----	--------	-----

LABORATORY-

HEMATOLOGY:

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)	YES	ANNUAL	YES
--	-----	--------	-----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
SGOT (AST)		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
THYROID		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (1); (3); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Hydrazines, DHEW Pub. No. 78-172. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

The potential for worker exposure is primarily through inhalation and skin absorption. Liquid in the eyes or on the skin causes severe burns. Hydrazine as the vapor or liquid is a severe skin and mucous membrane irritant, a convulsant, a hepatotoxin, and a carcinogen in animals.(1)

156      HYDROGEN CYANIDE/CYANIDE SALTS

STRESSOR(S) IN THIS PROGRAM:

HYDROGEN CYANIDE AND CYANIDE SALTS  
 CYANIDES  
 CYANAMIDE  
 CYANOGEN  
 CYANOGEN CHLORIDE  
 CALCIUM CYANAMIDE  
 METHYLACRYLONITRILE  
 METHYL 2-CYANOACRYLATE  
 SILVER CYANIDE  
 GOLD CYANIDE  
 LITHIUM CYANIDE  
 CALCIUM CYANIDE  
 POTASSIUM CYANIDE  
 SODIUM CYANIDE

NIOSH #	CAS #
MW6825000	74-90-8
GS7175000	57-12-5
GS5950000	420-04-2
GT1925000	460-19-5
GT2275000	506-77-4
GS6000000	156-62-7
UD1400000	126-98-7
AS7000000	137-05-3
VW3850000	506-64-9
EW0700000	592-01-8
TS8750000	151-50-8
VZ7525000	143-33-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK? (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	NO
NAUSEA OR VOMITING	YES	ANNUAL	NO
TREMORS	YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS	YES	ANNUAL	NO
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)	YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
THYROID		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Hydrogen Cyanide Salts, DHEW Pub. No. 77-108. PROGRAM REVISED 8/90.

## 158      HYDROGEN SULFIDE

STRESSOR(S) IN THIS PROGRAM:  
HYDROGEN SULFIDENIOSH #      CAS #  
MX1225000      7783-06-4

PROGRAM FREQUENCY:    ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	NO
WEIGHT LOSS	YES	ANNUAL	NO
TREMORS	YES	ANNUAL	NO
EYE IRRITATION	YES	ANNUAL	NO
EPILEPSY (SEIZURE DISORDER)	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS	YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY	YES	ANNUAL	NO
PERSONALITY CHANGE	YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO

LABORATORY-

RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	NO
COMMENTS ON LABORATORY RESULTS:	YES	NO	NO

PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:			
CENTRAL NERVOUS SYSTEM	YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)	YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Hydrogen Sulfide, DHEW Pub. No. 77-158.  
PROGRAM REVISED 8/90.

## 159 HYDROQUINONE (DIHYDROXY BENZENE)

STRESSOR(S) IN THIS PROGRAM:  
HYDROQUINONE

NIOSH # CAS #  
MX3500000 123-31-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
SLIT LAMP EXAM		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, LENS, RETINA)		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Hydroquinone, DHEW Pub. No. 78-155; ACGIH Documentation on TLV's, 1987. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Hydroquinone primarily affects the eyes. Chronic exposure produces changes characterized as: brownish discoloration of the conjunctiva and cornea confined to the interpalpebral tissue; small opacities of the cornea; and structural changes in the cornea that result in loss of visual acuity (3). Slit lamp exam is recommended to evaluate corneal changes and opacities.

196 ISOCYANATES

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
TOLUENE-2,4-DIISOCYANATE	CZ6300000	584-84-9
HEXAMETHYLENE DIISOCYANATE	MO1740000	822-06-0
METHYLENE BISPHENYL ISOCYANATE	NQ9350000	101-68-8
1,5-NAPHTHALENE DIISOCYANATE	NQ9850000	3173-72-6
ISOCYANURIC ACID	XZ1800000	108-80-5
ISOPHORONE DIISOCYANATE	NQ5400000	4098-71-9
METHYLENE BIS(4-CYCLOHEXYLISOCYANATE)	NQ9250000	5124-30-1

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO	
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO	
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO	
CANCER	YES	ANNUAL	NO	
BACK INJURY	YES	ANNUAL	NO	
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO	
HAVE YOU EVER SMOKED	YES	ANNUAL	NO	
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO	
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO	
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO	
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO	
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO	
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO	
SKIN DISEASE	YES	ANNUAL	NO	
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO	
SHORTNESS OF BREATH	YES	ANNUAL	NO	
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	NO	
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS	YES	ANNUAL	NO	
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO	
EXP TO ISOCYANATE FOAM OR PAINT	YES	ANNUAL	NO	
SENSITIZATION TO ISOCYANATES (TDI, MDI)	YES	ANNUAL	NO	
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO	
LABORATORY-				
RADIOLOGY-				
CHEST X-RAY (PA)	YES	NO	NO	

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES (2); (3); (4); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Toluene Diisocyanates, DHEW Pub. No. 73-11022; 2. Musk, AW, Peters JM, Wegman DH, Isocyanates and Respiratory Disease: Current Status, American Journal of Industrial Medicine, 1988;13:331-349. PROGRAM REVISED 8/90.

161 LEAD (INORGANIC)

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
LEAD (INORGANIC)	OF7525000	7439-92-1
LEAD CHROMATE	GB2975000	7758-97-6

PROGRAM FREQUENCY: SEMI-ANNUAL FOR BIOLOGIC MONITORING

OSHA STANDARD 29 CFR 1910.1025

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	***	YES
MAJOR ILLNESS OR INJURY		YES	***	YES
HOSPITALIZATION OR SURGERY		YES	***	YES
CANCER		YES	***	YES
BACK INJURY		YES	***	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	***	YES
HAVE YOU EVER SMOKED		YES	***	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	***	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	***	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	***	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	***	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	***	YES
BLOOD DISEASES (ANEMIA)		YES	***	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	***	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	***	YES
KIDNEY DISEASE		YES	***	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	***	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	***	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	***	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	***	YES
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	***	YES
PERSONALITY CHANGE		YES	***	YES
COMMENTS ON MEDICAL HISTORY:		YES	***	YES
LABORATORY-				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	***	YES
RBC MORPHOLOGY		YES	***	YES
SERUM CHEMISTRY:				
BUN AND CREATININE		YES	***	YES
BLOOD LEAD AND ZINC PROTOPORPHYRIN (ZPP)		YES	SEMI-A	YES
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	***	YES
COMMENTS ON LABORATORY RESULTS		YES	SEMI-A	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	***	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	***	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	***	YES
CARDIOVASCULAR SYSTEM		YES	***	YES
GUMS (E.G. LEAD LINES?)		YES	***	YES
ABDOMEN		YES	***	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	***	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	***	YES
<b>SPECIAL NOTATIONS:</b>				
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	***	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	***	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	***	YES
RECOMMENDATIONS:		YES	***	YES

#### PROGRAM DESCRIPTION:

A baseline examination is required prior to assignment to a position involving potential exposures to lead that equal or exceed the action level.

\*\*\*A medical examination identical in scope to the baseline will be conducted annually for each person found to have a blood lead concentration at or above 30 ug/100gm at any time during the prior year.

A termination examination identical in scope to the baseline, will be conducted just prior to the reassignment or termination of a person from a job requiring medical surveillance, unless a medical evaluation was done within the past twelve (12) months.

Guidelines for medical removal and follow-up, including written notification, are very specific. See 29 CFR1910.1025, Appendix C, and NAVOSH manuals for guidance. REFERENCES: (OTHER); 1. 29 CFR 1910.1025; 2. OPNAVINST 5100.23B, Chapter 21; 3. OPNAVINST 5100.19B, Chapter B10. 4. Industrial Hygiene Sampling Guide, consolidated Industrial Hygiene Laboratories, 1st Edition, January 1990. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

A Physician's Written Opinion is required by OSHA Standard. A sample Physician's Written Opinion can be found in Appendix F, F-6.

This program consists of; preplacement medical examination, semiannual blood lead monitoring, and follow-up medical evaluations and blood lead analysis based on the results of blood lead analysis and physician opinion. Personnel are included in this program when industrial hygiene surveillance indicates that they perform work or are likely to be in the vicinity of an operation which generates airborne lead concentrations at or above the Action Level 30 days per year. Inclusion in this program is based on measured airborne concentrations without regard to respirator use, and therefore does not indicate that an individual is overexposed to lead.

---

162      MACHINE OIL MISTS/CUTTING FLUIDS

PROGRAM FREQUENCY:    ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
PNEUMONIA		YES	ANNUAL	NO
WORK HISTORY OF:				
EYE INJURY		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4). PROGRAM REVISED 8/90.

## 210 MANGANESE OXIDE FUMES

STRESSOR(S) IN THIS PROGRAM:  
MANGANESE (AND COMPOUNDS)

NIOSH# CAS#  
OM3850000 7439-96-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
TREMORS		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3). PROGRAM REVISED 8/90.

## 212 MANMADE MINERAL FIBERS

STRESSOR(S) IN THIS PROGRAM:

NIOSH #

CAS #

PROGRAM FREQUENCIES: ANNUAL

EXAM ELEMENT

ELEMENT GIVEN FOR:

BASE  
LINE

PERI  
ODIC

TERM  
EXAM

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/ DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO
SKIN DISEASE			
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
SHORTNESS OF BREATH	YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	NO

## WORK HISTORY OF:

EXP TO DUSTS (COAL, BLAST. GRIT, SAND, NUISANCE)	YES	ANNUAL	NO
EXP TO ASBESTOS	YES	ANNUAL	NO
EXP TO SILICA OR SAND	YES	ANNUAL	NO
EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO

COMMENTS ON MEDICAL HISTORY:

YES ANNUAL NO

## LABORATORY-

## RADIOLOGY-

CHEST X-RAY (PA)	YES	PENTA-E	NO
------------------	-----	---------	----

## SPIROMETRY-

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO
----------------------------------	-----	--------	----

COMMENTS ON LABORATORY RESULTS:

YES ANNUAL NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); 1. NAVENVIRHLTHCEN Technical Manual NEHC-TM91-1 Oct 1990; 2. Marsh, et al. Mortality among a cohort of US manmade mineral fiber workers: 1985 Followup. J Occ Med, Jul 90. Vol.32, 594-604.  
PROGRAM REVISED 8/90.

163      **MERCURY**

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
MERCURY (ARYL AND INORGANIC COMPOUNDS)	OV4550000	7439-97-6
MERCURY (ALKYL COMPOUNDS)	OV4550000	7439-97-6
CHLOROETHYL MERCURY	OV9800000	107-27-7
MERCURY (VAPOR)	OV4550000	7439-97-6

PROGRAM FREQUENCY:      ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES	
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES	
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES	
CANCER	YES	ANNUAL	YES	
BACK INJURY	YES	ANNUAL	YES	
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES	
HAVE YOU EVER SMOKED	YES	ANNUAL	YES	
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES	
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES	
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES	
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES	
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES	
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES	
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	YES	
WEIGHT LOSS	YES	ANNUAL	YES	
TREMORS	YES	ANNUAL	YES	
TOOTH OR GUM DISEASE	YES	ANNUAL	YES	
KIDNEY DISEASE	YES	ANNUAL	YES	
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	YES	
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY	YES	ANNUAL	YES	
PERSONALITY CHANGE	YES	ANNUAL	YES	
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES	

**LABORATORY-**

**HEMATOLOGY:**

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)	YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT	YES	ANNUAL	YES

**SERUM CHEMISTRY:**

BUN AND CREATININE	YES	ANNUAL	YES
--------------------	-----	--------	-----

**URINALYSIS:**

**ROUTINE:**

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
URINE CHEMISTRY:				
URINE MERCURY		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (1); (2); (3); (4); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Inorganic Mercury, DHEW Pub. No. 73-11024; 2. NAVMEDCOMINST 6260.2, 7 NOV 88, Mercury Control Program for Dental Treatment Facilities. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Acute exposure to high concentrations of mercury vapor causes severe respiratory damage, whereas chronic exposure to lower levels is primarily associated with central nervous system damage.(3) Acute mercury poisoning can occur from inhalation of high concentrations of mercury vapor or dust. If the concentration of mercury vapor is high enough, the exposure will result in tightness and pain in the chest, difficulty in breathing, coughing, and shortly thereafter, a metallic taste, nausea, abdominal pain, vomiting diarrhea, headache, and occasionally albuminuria.

With chronic exposure to mercury vapor, early signs are nonspecific and include weakness, fatigue, anorexia, loss of weight and disturbances of gastrointestinal function. At higher exposure levels, a characteristic mercurial tremor appears. Personality changes are the most common findings in chronic mercurial poisoning. Symptoms may first occur after a very few weeks of exposure, or they may not become apparent for several years.(1) It has been estimated that the probability of manifesting typical mercurialism with tremor and behavioral changes will increase with exposures to concentrations of 0.1mg/m<sup>3</sup> or higher. There is no evidence of effects at concentrations below 0.01 mg/m<sup>3</sup>.(3)

## 215 METHYL BROMIDE

STRESSOR(S) IN THIS PROGRAM:  
METHYL BROMIDE

NIOSH # CAS #  
PA4900000 74-83-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO

## LABORATORY-

## RADIOLOGY:

CHEST X-RAY (PA)	YES	NO	NO
------------------	-----	----	----

## SPIROMETRY:

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO
----------------------------------	-----	--------	----

COMMENTS ON LABORATORY RESULTS:

## PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	NO
-------------	-----	--------	----

## SPECIAL ATTENTION IN EXAMINATION TO:

CENTRAL NERVOUS SYSTEM	YES	ANNUAL	NO
------------------------	-----	--------	----

PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)	YES	ANNUAL	NO
--	-----	--------	----

RESPIRATORY SYSTEM	YES	ANNUAL	NO
--------------------	-----	--------	----

SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)	YES	ANNUAL	NO
---	-----	--------	----

OTHER APPROPRIATE EXAMINATION (SPECIFY):	YES	ANNUAL	NO
--	-----	--------	----

COMMENTS ON PHYSICAL EXAMINATION:	YES	ANNUAL	NO
-----------------------------------	-----	--------	----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); 1. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards, U.S. Department Of Health And Human Services, Sept.1978; 2. Gunther FA, Gunther JD. Residue Reviews. New York, NY:Springer-Verlag; 1983: vol.88:102-150; 3. Cralley LJ, Cralley LV. Patty,s Industrial Hygiene And Toxicology 3rd Ed. New York, NY:John Wiley & Sons, Inc. 1981: vol.2B:3442-3444, 3472-3478; 4. Morgan DP. Recognition and Management of Pesticide Poisonings, Fourth Edition. United States Environmental Protection Agency. 1989:132-133. NEW PROGRAM 11/90.

## 166 METHYL CHLOROMETHYL ETHER

STRESSOR(S) IN THIS PROGRAM:  
CHLOROMETHYL METHYL ETHER

NIOSH # CAS #  
KN6650000 107-30-2

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1006

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCLUDING CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCE: (OTHER); 29 CFR 1910.1006. PROGRAM REVISED 8/90.

167 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA)

STRESSOR(S) IN THIS PROGRAM:  
4,4'-METHYLENE BIS(2-CHLOROANILINE)

NIOSH # CAS #  
CY1050000 101-14-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/150		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO CARCINOGENS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

**LABORATORY-**

**SERUM CHEMISTRY:**

**LIVER PROFILE TO INCLUDE:**

SGOT (ast), TOT. BILI., ALK. PHOS.

YES NO YES

SGOT (AST)

YES ANNUAL YES

**URINALYSIS:**

**ROUTINE:**

URINALYSIS WITH MICROSCOPIC

YES ANNUAL YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
GENITOURINARY TRACT		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

168 METHYLENE CHLORIDE (DICHLOROMETHANE)

STRESSOR(S) IN THIS PROGRAM:  
METHYLENE CHLORIDE

NIOSH # CAS #  
PA8050000 75-09-2

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
EYE IRRITATION		YES	ANNUAL	YES
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

**LABORATORY-**

**HEMATOLOGY:**

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC) YES ANNUAL YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	***	YES
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

\*\*\*EKG given annually to workers over age 39. REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Methylene Chloride, DHEW Pub. No. 76-138. PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
4,4'-DIAMINODIPHENYLMETHANE

NIOSH # CAS #

PROGRAM FREQUENCY: ANNUAL

OSHA PROPOSED STANDARD

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
USE OF BARBITURATES		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
<b>FAMILY HISTORY OF:</b>				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
BUN AND CREATININE		YES	ANNUAL	YES
URINALYSIS:				
ROUTINE:				
URINALYSIS WITHOUT MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
ABDOMEN		YES	ANNUAL	YES
GENITOURINARY TRACT		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON		YES	ANNUAL	YES
OPNAV 5.00/25?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (OTHER); 1. Aitio, Antero, M.D., Ph.D., Biologic Monitoring, p 178-179; 2. Cocker, J., Assessment of occupational exposure to 4,4'-diaminodiphenylmethane (methylene dianiline) by gas chromatography-mass spectrometry analysis of urine, British Journal of Industrial Medicine, 1986;43:620-625; 3. Hathaway, Gloria J. Ph.D., and J.P. Hughes, M.D., Supplements to Chemical Hazards of the Workplace, 2nd ed., Volume 1, Number 5. NEW PROGRAM 8/90.

## 170 ALPHA-NAPHTHYLAMINE

STRESSOR(S) IN THIS PROGRAM:  
ALPHA-NAPHTHYLAMINE

NIOSH # CAS #  
QM1400000 134-32-7

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910. 1004

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	YES
SHORTNESS OF BREATH	YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE	YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)	YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION	YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)	YES	ANNUAL	YES

## FAMILY HISTORY OF:

GENETIC DISEASE (INCLUDING CHILDREN)	YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES

COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES
------------------------------	-----	--------	-----

## LABORATORY-

## URINALYSIS-

## ROUTINE:

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----

COMMENTS ON LABORATORY RESULTS:	YES	ANNUAL	YES
---------------------------------	-----	--------	-----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (OTHER) 1. 29 CFR 1910.1004; 2. Occupational Safety and Health Guidelines for Chemical Hazards, DHHS (NIOSH) Pub. No. 89-104, Supplement II-OHG 1988; 3. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Supplement 7, 1987. PROGRAM REVISED 8/90.

## 171 BETA-NAPHTHYLAMINE

STRESSOR(S) IN THIS PROGRAM:  
BETA-NAPHTHYLAMINE

NIOSH # CAS #  
QM2100000 91-59-8

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1009

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCLUDING CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES

**EXAM ELEMENT****ELEMENT GIVEN FOR:**

<b>BASE LINE</b>	<b>PERI ODIC</b>	<b>TERM EXAM</b>
----------------------	----------------------	----------------------

**SPECIAL NOTATIONS:**

SUBSTANCE(S) KNOWN HUMAN CARCINOGEN

YES ANNUAL YES

PHYSICIAN'S WRITTEN OPINION REQUIRED

YES ANNUAL YES

IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON  
OPNAV 5100/15?

YES ANNUAL YES

ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?

YES ANNUAL YES

**RECOMMENDATIONS:**

YES ANNUAL YES

---

**PROGRAM DESCRIPTION:**REFERENCES: (1); (2); (3); (OTHER) 29 CFR 1910.1009. PROGRAM REVISED  
8/90.

172 NICKEL (INORGANIC)

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
NICKEL (METAL)	QR5950000	7440-02-0
NICKEL SULFIDE ROASTING, FUME AND DUST	QR9800000	12035-72-2
NICKEL (SOLUBLE COMPOUNDS)	QR5950000	7440-02-0

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS)	YES	ANNUAL	YES

WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	YES

FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES
----------------------------	-----	--------	-----

COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES
------------------------------	-----	--------	-----

LABORATORY-

RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	YES
------------------	-----	----	-----

COMMENTS ON LABORATORY RESULTS:	YES	NO	YES
---------------------------------	-----	----	-----

PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	YES
-------------	-----	--------	-----

SPECIAL ATTENTION IN EXAMINATION TO:

NASAL MUCOSA (SEPTAL PERFORATION)	YES	ANNUAL	YES
-----------------------------------	-----	--------	-----

RESPIRATORY SYSTEM	YES	ANNUAL	YES
--------------------	-----	--------	-----

SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)	YES	ANNUAL	YES
---	-----	--------	-----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); 1. NIOSH-OSHA, Occupational Guidelines for Nickel Metal and Soluble Nickel Compounds, Washington, DC. DHHS/DOL: 1978: 1-7; 2. National Research Council, Nickel: Medical and Biologic Effects of Environmental Pollutants, Washington, DC: National Academy of Sciences: 1975; 97-128. PROGRAM REVISED 8/90.

## 173 NICKEL CARBONYL

STRESSOR(S) IN THIS PROGRAM:  
NICKEL CARBONYL

NIOSH # CAS #  
QR6300000 13463-39-3

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES

## WORK HISTORY OF:

EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	YES
------------------------------	-----	--------	-----

## FAMILY HISTORY OF:

CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES
----------------------------	-----	--------	-----

COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	YES
------------------------------	-----	--------	-----

## LABORATORY-

## RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	YES
------------------	-----	----	-----

## SPIROMETRY-

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	YES
----------------------------------	-----	--------	-----

COMMENTS ON LABORATORY RESULTS:	YES	ANNUAL	YES
---------------------------------	-----	--------	-----

## PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	YES
-------------	-----	--------	-----

## SPECIAL ATTENTION IN EXAMINATION TO:

NASAL MUCOSA (SEPTAL PERFORATION)	YES	ANNUAL	YES
-----------------------------------	-----	--------	-----

RESPIRATORY SYSTEM	YES	ANNUAL	YES
--------------------	-----	--------	-----

OTHER APPROPRIATE EXAMINATION (SPECIFY)	YES	ANNUAL	YES
---	-----	--------	-----

COMMENTS ON PHYSICAL EXAMINATION:	YES	ANNUAL	YES
-----------------------------------	-----	--------	-----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); 1. NIOSH-OSHA, Occupational Guideline for Nickel Carbonyl, Washington, DC: DHHS/DOL; 1978: 1-5; 2. National Research Council, Nickel: Medical and Biologic Effects of Environmental Pollutants, Washington, DC: National Academy of Sciences: 1975; 97-128. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Periodic urine nickel measurement has not been correlated with chronic health outcomes; however, urine nickel evaluation may assist the provider in determining if a worker with mild symptoms of nickel carbonyl toxicity would benefit from chelation therapy. Chelation therapy for workers with moderate or severe symptoms of nickel carbonyl toxicity is based on history and should not be delayed awaiting laboratory determination of urine nickel levels.

## 174 NITROGEN OXIDES

STRESSOR(S) IN THIS PROGRAM:  
NITROGEN DIOXIDE  
NITRIC OXIDE

NIOSH #	CAS #
QW9800000	10102-44-0
QX0525000	10102-43-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
EYE IRRITATION	YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS	YES	ANNUAL	NO

WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO

COMMENTS ON MEDICAL HISTORY:

	YES	ANNUAL	NO
--	-----	--------	----

LABORATORY-

RADIOLOGY-

CHEST X-RAY (PA)	YES	NO	NO
------------------	-----	----	----

SPIROMETRY-

SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO
----------------------------------	-----	--------	----

COMMENTS ON LABORATORY RESULTS:

	YES	ANNUAL	NO
--	-----	--------	----

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
TEETH (ACID EROSION)		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15/		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Nitric Acid, DHEW Pub. No. 76-141.  
PROGRAM REVISED 8/90.

## 175 4-NITROBIPHENYL

STRESSOR(S) IN THIS PROGRAM:  
4-NITRODIPHENYL

NIOSH # CAS #  
DV5600000 92-93-3

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1003

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE)		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
IMPOTENCE OR SEXUAL DYSFUNCTION		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCL CHILDREN)		YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (OTHER); 29 CFR 1910.1003. PROGRAM REVISED  
8/90.

## 176 NITROGLYCERINE

STRESSOR(S) IN THIS PROGRAM:  
NITROGLYCERIN

NIOSH # CAS #  
QX2100000 55-63-0

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
MIGRAINE HEADACHE		YES	ANNUAL	NO
FAMILY HISTORY OF:				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
LABORATORY-				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	NO
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	ANNUAL	NO
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4). PROGRAM REVISED 8/90.

## 211 2-NITROPROPANE

STRESSOR(S) IN THIS PROGRAM:  
2-NITROPROPANENIOSH # CAS #  
79-46-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY:				
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
SGOT (AST)		YES	ANNUAL	YES
RADIOLOGY:				
CHEST X-RAY (PA)		YES	NO	YES
SPIROMETRY:				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3). PROGRAM REVISED 8/90.

## 177 N-NITROSODIMETHYLAMINE

STRESSOR(S) IN THIS PROGRAM:  
N-NITROSODIMETHYLAMINE

NIOSH # CAS #  
IQ0525000 62-75-9

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1016

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6' OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
LIVER DISEASE	YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE	YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)	YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)	YES	ANNUAL	YES

FAMILY HISTORY OF:

GENETIC DISEASE (INCLUDING CHILDREN)	YES	ANNUAL	YES
CANCERS (LEUKEMIA, TUMORS)	YES	ANNUAL	YES

COMMENTS ON MEDICAL HISTORY: YES ANNUAL YES

LABORATORY-

SERUM CHEMISTRY:

LIVER PROFILE TO INCLUDE:

SGOT (AST), TOT. BILI., ALK. PHOS.	YES	NO	YES
SGOT (AST)	YES	ANNUAL	YES

URINALYSIS:

ROUTINE:

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----

COMMENTS ON LABORATORY RESULTS: YES ANNUAL YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
LIVER		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (OTHER) 29 CFR 1910.1016. PROGRAM REVISED  
8/90.

179 ORGANOPHOSPHATE/CARBAMATE COMPOUNDS

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
CARBARYL	FC5950000	63-25-2
MALATHION	WM8400000	121-75-5
METHYL PARATHION	TG0175000	298-00-0
PARATHION	TF4550000	56-38-2
FERBAM	NO8750000	14484-64-1
PROPOXUR	FC3150000	114-26-1

PROGRAM FREQUENCY: SEE PROGRAM DESCRIPTION

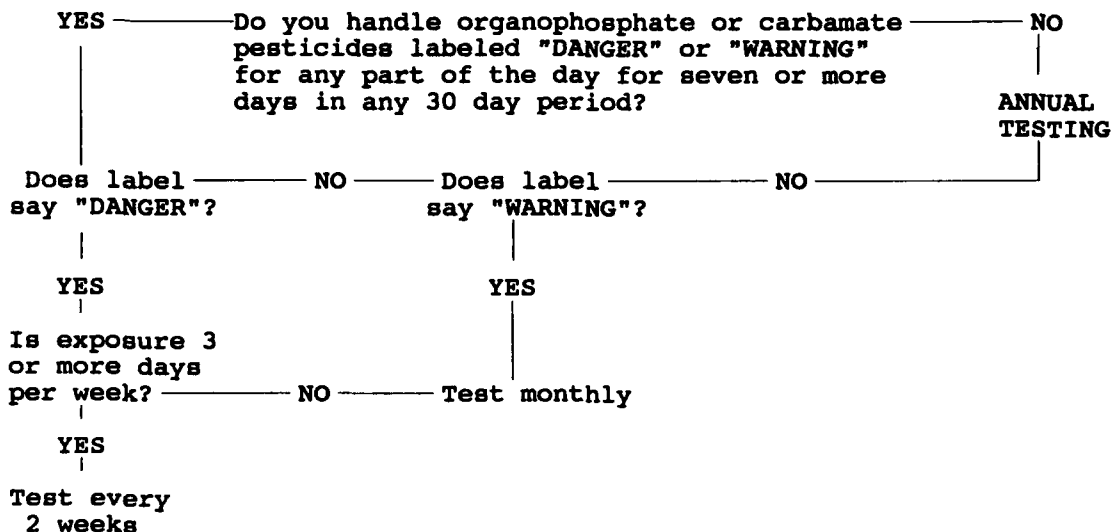
EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO	
MAJOR ILLNESS OR INJURY	YES	NO	NO	
HOSPITALIZATION OR SURGERY	YES	NO	NO	
CANCER	YES	NO	NO	
BACK INJURY	YES	NO	NO	
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	NO	NO	
HAVE YOU EVER SMOKED	YES	NO	NO	
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	NO	NO	
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	NO	NO	
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	NO	NO	
ALLERGIES (INCLUDE MEDICATIONS)	YES	NO	NO	
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	NO	NO	
SKIN DISEASE	YES	NO	NO	
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	NO	NO	
USE OF ANTICHOLINERGIC DRUGS (DONNATAL)	YES	NO	NO	
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	NO	NO	
NAUSEA OR VOMITING	YES	NO	NO	
WEIGHT LOSS	YES	NO	NO	
GLAUCOMA	YES	NO	NO	
EPILEPSY (SEIZURE DISORDER)	YES	NO	NO	
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	NO	NO	
MIGRAINE HEADACHE	YES	NO	NO	
COMMENTS ON MEDICAL HISTORY:	YES	NO	NO	
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
RBC CHOLINESTERASE	YES	*ANNUAL	NO	
PLASMA (OR SERUM) CHOLINESTERASE	YES	*ANNUAL	NO	
<b>OPTOMETRY-</b>				
TONOMETRY	YES	NO	NO	
COMMENTS ON LABORATORY RESULTS:	YES	*ANNUAL	NO	

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	NO	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	NO	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	NO	NO
RESPIRATORY SYSTEM		YES	NO	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	NO	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	NO	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	NO	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?				
		YES	NO	NO
RECOMMENDATIONS:				
		YES	NO	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (4); (OTHER); 1. OPNAVINST 6250.4A, Pest Management Programs, 28 Nov 90. PROGRAM REVISED 4/91.

**\* FREQUENCY OF CHOLINESTERASE TESTING**



**PROVIDER COMMENTS:** Above frequency of testing applies only during the period that the worker is exposed during seven or more days in any 30 day period. Personnel who only handle pesticides labeled "CAUTION," regardless of the frequency, and those who handle pesticides labeled "DANGER" or "WARNING" less frequently than described above shall have plasma and RBC cholinesterase tested at least annually, preferably during the season in which the greatest exposure to organophosphate or carbamate pesticides occurs.

## 180 ORGANOTIN COMPOUNDS

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
TIN (ORGANIC COMPOUNDS)		
TRIBUTYLTIN OXIDE	JN8750000	56-35-9
METHYL TIN MERCAPTIDE		
TRIBUTYLTIN BENZOATE	WH6710000	4342-36-3
DIBUTYLTIN DILAUATE	WH7000000	77-58-7
TRIBUTYLTIN FLUORIDE	WH8275000	1983-10-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	NO
NAUSEA OR VOMITING	YES	ANNUAL	NO
CHANGE OR LOSS OF VISION	YES	ANNUAL	NO
EYE IRRITATION	YES	ANNUAL	NO
LIVER DISEASE	YES	ANNUAL	NO
PROBLEMS WITH URINATION/BLOOD IN URINE	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO

## WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO

## LABORATORY:

## SERUM CHEMISTRY:

## LIVER PROFILE TO INCLUDE:

SGOT (AST), TOT. BILI., ALK. PHOS.	YES	NO	NO
SGOT (AST)	YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY:</b>				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	NO	NO
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER) NIOSH criteria for a recommended standard...Occupational Exposure to Organotin Compounds, DHEW Pub. No. 77-115.  
PROGRAM REVISED 8/90.

---

186 OTTO FUEL/ OTHER ALKYL NITRATE PROPELLANTS

## STRESSOR(S) IN THIS PROGRAM:

ETHYLENE GLYCOL DINITRATE  
 PROPYLENE GLYCOL DINITRATE  
 THYLENE GLYCOL DINITRATE  
 ETHYLHEXYL NITRATE

NIOSH #	CAS #
KW5600000	628-96-6
TY6300000	6423-43-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
USE OF NITRATE MEDICATION (NITROGLYCERINE)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
MIGRAINE HEADACHE		YES	ANNUAL	NO
<b>FAMILY HISTORY OF:</b>				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	ANNUAL	NO
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCE: (OTHER); 1. NAVMEDCOMINST 6270.1, 19 MAR 85, HEALTH HAZARDS OF OTTO FUEL II; 2. Jones RA., Strickland, JA., Siegel J. Toxicity of propylene 1,2-dinitrate in experimental animals, Toxicology and Applied Pharmacology, 1972;22:128-137; 3. NAVENVIRHLTHCEN ltr 6260 Ser 3213mt/04449 of 27 Apr 90. PROGRAM REVISED 8/90.

184 POLYCHLORINATED BIPHENYLS (PCB)

STRESSOR(S) IN THIS PROGRAM:  
CHLORODIPHENYL (42% CHLORINE)  
CHLORODIPHENYL (54% CHLORINE)

NIOSH # CAS #  
TQ1356000 53469-21-9  
TQ1360000 27323-18-8

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT.BILI., ALK. PHOS.		YES	NO	NO
SGOT (AST)		YES	ANNUAL	NO
TRIGLYCERIDES		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
LIVER		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

Placement on medical surveillance program is for personnel exposed to PCB's above the medical surveillance action level. These levels are based on airborne concentrations of PCB's. There is no current required medical surveillance based on skin contact alone and none is recommended at this time.

REFERENCES: (1); (3); (4); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Polychlorinated Biphenyls, DHEW Pub. No. 77-225; 2. NIOSH Current Intelligence Bulletin 45, Feb 24, 1986; 3. NAVENVIRHLTHCEN letter 6263.1 Ser 09nd/11643m 30 Nov 89, ADVISORY ON POLYCHLORINATED BIPHENYLS (PCBs). PROGRAM REVISED 8/90.

## 185 BETA-PROPIOLACTONE

STRESSOR(S) IN THIS PROGRAM:  
BETA-PROPIOLACTONE

NIOSH # CAS #  
RQ7350000 57-57-8

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.1013

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	YES
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO CARCINOGENS		YES	ANNUAL	YES
FAMILY HISTORY OF:				
GENETIC DISEASE (INCLUDING CHILDREN)		YES	ANNUAL	YES
CANCER (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES

**EXAM ELEMENT****ELEMENT GIVEN FOR:**

<b>BASE LINE</b>	<b>PERI ODIC</b>	<b>TERM EXAM</b>
----------------------	----------------------	----------------------

**SPECIAL NOTATIONS:**

SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN

YES ANNUAL YES

PHYSICIAN'S WRITTEN OPINION REQUIRED

YES ANNUAL YES

IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON  
OPNAV 5100/15?

YES ANNUAL YES

ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?

YES ANNUAL YES

RECOMMENDATIONS:

YES ANNUAL YES

---

**PROGRAM DESCRIPTION:**REFERENCES: (1); (2); (3); (OTHER); 29 CFR 1910.1013. PROGRAM REVISED  
8/90.

---

187     SILICA (CRYSTALLINE)

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
SILICA CRYSTALLINE CRISTOBALITE	VV7325000	14464-46-1
SILICA CRYSTALLINE QUARTZ	VV7330000	14808-60-7
SILICA CRYSTALLINE TRIDYMITE	VV7335000	15468-32-3
SILICA CRYSTALLINE TRIPOLI	VV7336000	1317-95-9
SILICA AMORPHOUS FUSED	VV7320000	60676-86-0

PROGRAM FREQUENCY:    ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO	
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO	
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO	
CANCER	YES	ANNUAL	NO	
BACK INJURY	YES	ANNUAL	NO	
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO	
HAVE YOU EVER SMOKED	YES	ANNUAL	NO	
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO	
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO	
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO	
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO	
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO	
LUNG OR RESP DISEASE (COPD,BRONCHITIS,PNEUMONITIS)	YES	ANNUAL	NO	
TUBERCULOSIS	YES	ANNUAL	NO	
SHORTNESS OF BREATH	YES	ANNUAL	NO	
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	NO	
<b>WORK HISTORY OF:</b>				
EXP TO DUSTS (COAL,BLAST. GRIT,SAND,NUISANCE)	YES	ANNUAL	NO	
EXP TO ASBESTOS	YES	ANNUAL	NO	
EXP TO SILICA OR SAND	YES	ANNUAL	NO	
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO	
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO	
<b>LABORATORY-</b>				
<b>ADDITIONAL LAB TESTS:</b>				
TUBERCULOSIS SCREEN	YES	ANNUAL	NO	
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)	YES	ANNUAL	NO	
<b>SPIROMETRY-</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO	
COMMENTS ON LABORATORY RESULTS:	YES	ANNUAL	NO	



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?				
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Crystalline Silica, DHEW Pub. No. 75-120.  
PROGRAM REVISED 8/90.

PROGRAM FREQUENCY: ANNUAL

STRESSOR(S) IN THIS PROGRAM:  
STYRENENIOSH# CAS#  
100-42-5

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
TREMORS		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY-</b>				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
IMMUNOCOMPETENCE (LYMPHATIC SYSTEM)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Styrene, DHEW Pub. No. 83-119. PROGRAM REVISED 8/90.

## 190 SULFUR DIOXIDE

STRESSOR(S) IN THIS PROGRAM:  
SULFUR DIOXIDE

NIOSH # CAS #  
WS4550000 7446-09-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
TOOTH OR GUM DISEASE		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY-</b>				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
TEETH (ACID EROSION)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER) NIOSH, criteria for a recommended standard...Occupational Exposure to Sulfur Dioxide. PROGRAM REVISED 8/90.

191 1,1,2,2-TETRACHLOROETHANE

STRESSOR(S) IN THIS PROGRAM:  
1,1,2,2-TETRACHLOROETHANE

NIOSH # CAS #  
KI8575000 79-34-5

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NAUSEA OR VOMITING		YES	ANNUAL	NO
WEIGHT LOSS		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
SGOT (AST)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to 1,1,2,2-Tetrachloroethane, DHEW Pub. No. 77-121. PROGRAM REVISED 8/90.

192 TETRACHLOROETHYLENE (PERCHLOROETHYLENE)

STRESSOR(S) IN THIS PROGRAM:  
PERCHLOROETHYLENE

NIOSH # CAS #  
KX3850000 127-18-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NAUSEA OR VOMITING		YES	ANNUAL	NO
TREMORS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
NEUR DISORDER,GAIT CHANGE,PARESTHESIA,COORD LOSS		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK,PERC,TCE,TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB,HCT,WBC,MCV,MCH,MCHC)		YES	ANNUAL	NO
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	NO
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT.BILI., ALK. PHOS.		YES	NO	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON		YES	ANNUAL	NO
OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Tetrachloroethylene, DHEW Pub. No. 76-185; Brown DP, Kaplan SD, Retrospective Cohort Mortality Study of Dry Cleaner Workers Using Perchloroethylene, Journal of Occupational Medicine 29:53551, 1987; Federal Register FR54:2686-91 29 CFR Part 1910 Air Contaminants, Final rule 19 JAN 89; Key MM et al. (ed.) Occupational Diseases, A Guide to their Recognition. NIOSH 1977, 213-4,448. PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
TETRYL

NIOSH # CAS #  
BY6300000 479-45-8

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
<b>FAMILY HISTORY OF:</b>				
BLOOD DISEASES (ANEMIA)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY:</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	NO
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
SGOT (AST)		YES	ANNUAL	NO
<b>SPIROMETRY:</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (3). PROGRAM REVISED 8/90.

## 214 ORTHO-TOLIDINE

STRESSOR(S) IN THIS PROGRAM:  
O-TOLIDINENIOSH # CAS #  
DD1225000 119-93-7

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
KIDNEY DISEASE	YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE	YES	ANNUAL	YES

WORK HISTORY OF:

EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS	YES	ANNUAL	YES
EXP TO SKIN IRRITANTS	YES	ANNUAL	YES
EXP TO CARCINOGENS	YES	ANNUAL	YES

COMMENTS ON MEDICAL HISTORY:

	YES	ANNUAL	YES
--	-----	--------	-----

LABORATORY-

URINALYSIS:

ROUTINE:

URINALYSIS WITH MICROSCOPIC	YES	ANNUAL	YES
-----------------------------	-----	--------	-----

COMMENTS ON LABORATORY RESULTS:

	YES	ANNUAL	YES
--	-----	--------	-----

PHYSICAL EXAMINATION:

VITAL SIGNS	YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:			
KIDNEY	YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)	YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)	YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:	YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SPECIAL NOTATIONS:				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); 1. NIOSH, Criteria for a recommended standard....Occupational exposure to o-Tolidine, DHEW (NIOSH) Pub. No. 78-179; 2. ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices, Fifth Edition, Cincinnati: ACGIH, Inc. 1986. 577. PROGRAM REVISED 8/91.

## 195 TOLUENE

STRESSOR(S) IN THIS PROGRAM:  
TOLUENENIOSH # CAS #  
XS5250000 108-88-3

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
HEPATITIS OR JAUNDICE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	NO
NAUSEA OR VOMITING	YES	ANNUAL	NO
EYE IRRITATION	YES	ANNUAL	NO
LIVER DISEASE	YES	ANNUAL	NO
KIDNEY DISEASE	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO
MIGRAINE HEADACHE	YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY	YES	ANNUAL	NO

WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)	YES	ANNUAL	NO

COMMENTS ON MEDICAL HISTORY: YES ANNUAL NO

LABORATORY-

HEMATOLOGY:

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)	YES	ANNUAL	NO
DIFFERENTIAL WHITE BLOOD CELL COUNT	YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>SERUM CHEMISTRY:</b>				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT.BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Toluene, DHEW Pub. No. (HSM) 7311023;  
2. Federal Register FR54:2431-32 19 JAN 89. PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
O-TOLUIDINE

NIOSH # CAS #  
XU2975000 95-53-4

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	YES
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
GENITOURINARY TRACT		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON				
OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (OTHER); 1. FEDERAL REGISTER FR54:12 29 CFR PART 1910 Air Contaminates, Final Rule 2689-90, 19 Jan 89; 2. Occupational Health Guidelines for O-toluidine, DHHS (NIOSH) Publication 81-123. PROGRAM REVISED 8/90.

197 1,1,1-TRICHLOROETHANE (METHYLCHLOROFORM)

STRESSOR(S) IN THIS PROGRAM:  
METHYLCHLOROFORM

NIOSH # CAS #  
KJ2975000 71-55-6

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
<b>FAMILY HISTORY OF:</b>				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT.BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>CARDIOLOGY:</b>				
ELECTROCARDIOGRAM		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

REFERENCES: (3); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to 1,1,1-Trichloroethane (Methyl Chloroform) DHEW Pub. No. 76-184; 2. Federal Register FR54:2427 29 CFR Part 1910 Air Contaminants, Final Rule 19 JAN 89; 3. Clayton GD and Clayton FE (ed) Patty's Industrial Hygiene and Toxicology, 3rd Revised Ed. New York: John Wiley & Sons, Inc. 1981, 3502-3510; 4. Key MM et al. (ed) Occupational Diseases, A Guide to their Recognition NIOSH, 1977, 215-216. PROGRAM REVISED 8/90.

STRESSOR(S) IN THIS PROGRAM:  
TRICHLOROETHYLENE

NIOSH # CAS #  
KX4550000 79-01-6

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
NAUSEA OR VOMITING		YES	ANNUAL	YES
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	YES
LIVER DISEASE		YES	ANNUAL	YES
KIDNEY DISEASE		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	YES
FAMILY HISTORY OF:				
CANCERS (LEUKEMIA, TUMORS)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) SUSPECTED HUMAN CARCINOGEN		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Trichloroethylene DHEW Pub. No. 73-11025; 2. NIOSH Current Intelligence Bulletin 20; 3. Federal Register FR54:2432-34 29CFR Part 1910 Air Contaminants, Final Rule 19 JAN 89. PROGRAM REVISED 8/90.

199 TRIORTHOCRESYLPHOSPHATE (TOCP)

STRESSOR(S) IN THIS PROGRAM:  
 TRIORTHOCRESYL PHOSPHATE  
 TRIMETHYLOLPROPANE PHOSPHATE (TMPP)

NIOSH # CAS #  
 TD0350000 78-30-8

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY (OPNAV 5100/15)	CURRENT	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
USE OF ANTICHOLINERGIC DRUGS (DONNATAL)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC.)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (3); (4); (OTHER); 1. Baldrige HD et al, "Toxicology of a Triaryl Phosphate Oil III, Human Exposure in Operational Use Aboard Ship" AMA Archives of Industrial Health, 1959, 20:258-61; 2. Federal Register FR54:2721-23 29 CFR Part 1910 Air Contaminants Final Rule 19 JAN 89. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

While not technically correct, hydraulic fluids are sometimes referred to generically as single trade names (i.e., Cellulube, Houghto-Safe, Fyrquel). Cellulube is an obsolete name for a series of triaryl phosphate fluids marketed by Celanese Chemical corporation which were discontinued in the early 1970's. TMPP is only present as a pyrolysis product of lubricating oils under specific circumstances such as accidental fires.

200 TUNGSTEN AND CEMENTED TUNGSTEN CARBIDE

STRESSOR(S) IN THIS PROGRAM:	NIOSH #	CAS #
TUNGSTEN (INSOLUBLE COMPOUNDS)	YO7175000	7440-33-7
TUNGSTEN (SOLUBLE COMPOUNDS)	YO7175000	7440-33-7

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO	
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO	
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO	
CANCER	YES	ANNUAL	NO	
BACK INJURY	YES	ANNUAL	NO	
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO	
HAVE YOU EVER SMOKED	YES	ANNUAL	NO	
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO	
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO	
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO	
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO	
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO	
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)	YES	ANNUAL	NO	
SKIN DISEASE	YES	ANNUAL	NO	
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO	
SHORTNESS OF BREATH	YES	ANNUAL	NO	
COUGH (DRY OR PRODUCTIVE)	YES	ANNUAL	NO	
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS	YES	ANNUAL	NO	
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO	
COMMENTS ON MEDICAL HISTORY:	YES	ANNUAL	NO	
<b>LABORATORY-</b>				
RADIOLOGY-				
CHEST X-RAY (PA)	YES	NO	NO	
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)	YES	ANNUAL	NO	
COMMENTS ON LABORATORY RESULTS:	YES	ANNUAL	NO	
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS	YES	ANNUAL	NO	
SPECIAL ATTENTION IN EXAMINATION TO:				
RESPIRATORY SYSTEM	YES	ANNUAL	NO	
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)	YES	ANNUAL	NO	
OTHER APPROPRIATE EXAMINATION (SPECIFY)	YES	ANNUAL	NO	
COMMENTS ON PHYSICAL EXAMINATION:	YES	ANNUAL	NO	



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (4) (OTHER); NIOSH Criteria for a recommended standard...Occupational Exposure to Tungsten and Cemented Tungsten Carbide. US DHEW (NIOSH) Publication 77-127. PROGRAM REVISED 8/90.

## 201 VANADIUM

## STRESSOR(S) IN THIS PROGRAM:

VANADIUM (AS V2O5 DUST)

VANADIUM (AS V2O5 FUME)

## NIOSH #

YN2450000

YW2460000

## CAS #

1314-62-1

1314-62-1

PROGRAM FREQUENCY: ANNUAL

## EXAM ELEMENT

## ELEMENT GIVEN FOR:

## BASE

## PERI

## TERM

## LINE

## ODIC

## EXAM

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)

YES

ANNUAL

NO

MAJOR ILLNESS OR INJURY

YES

ANNUAL

NO

HOSPITALIZATION OR SURGERY

YES

ANNUAL

NO

CANCER

YES

ANNUAL

NO

BACK INJURY

YES

ANNUAL

NO

DO YOU DRINK 6 OR MORE DRINKS PER WEEK

YES

ANNUAL

NO

(BEER, WINE, LIQUOR)

HAVE YOU EVER SMOKED

YES

ANNUAL

NO

DO YOU CURRENTLY SMOKE (PACKS/DAY)

YES

ANNUAL

NO

HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE

YES

ANNUAL

NO

CURRENT MEDICATION USE (PRESCRIPTION OR OTC)

YES

ANNUAL

NO

ALLERGIES (INCLUDE MEDICATIONS)

YES

ANNUAL

NO

USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)

YES

ANNUAL

NO

ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)

YES

ANNUAL

NO

SKIN DISEASE

YES

ANNUAL

NO

LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)

YES

ANNUAL

NO

EYE IRRITATION

YES

ANNUAL

NO

## WORK HISTORY OF:

EXP TO SKIN IRRITANTS

YES

ANNUAL

NO

EXP TO RESPIRATORY IRRITANTS

YES

ANNUAL

NO

COMMENTS ON MEDICAL HISTORY:

YES

ANNUAL

NO

## LABORATORY-

## SPIROMETRY-

SPIROMETRY (FVC, FEV1, FEV1/FVC)

YES

ANNUAL

NO

COMMENTS ON LABORATORY RESULTS:

YES

ANNUAL

NO

## PHYSICAL EXAMINATION:

## VITAL SIGNS

YES

ANNUAL

NO

## SPECIAL ATTENTION IN EXAMINATION TO:

EYES (CONJUNCTIVA, SCLERA)

YES

ANNUAL

NO

MUCOUS MEMBRANES

YES

ANNUAL

NO

RESPIRATORY SYSTEM

YES

ANNUAL

NO

SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)

YES

ANNUAL

NO

OTHER APPROPRIATE EXAMINATION (SPECIFY)

YES

ANNUAL

NO

COMMENTS ON PHYSICAL EXAMINATION:

YES

ANNUAL

NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); NIOSH criteria for a recommended standard...Occupational Exposure to Vanadium DHEW Pub. No. 77-222. PROGRAM REVISED 8/90.

203 VINYL CHLORIDE 10+ YEARS EXPOSURE (CHLOROETHENE)

STRESSOR(S) IN THIS PROGRAM:  
VINYL CHLORIDE

NIOSH # CAS #  
KU9625000 75-01-4

PROGRAM FREQUENCIES: SEMI-ANNUAL

OSHA STANDARD 29 CFR 1910.1017

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	SEMI-A	YES
MAJOR ILLNESS OR INJURY		YES	SEMI-A	YES
HOSPITALIZATION OR SURGERY		YES	SEMI-A	YES
CANCER		YES	SEMI-A	YES
BACK INJURY		YES	SEMI-A	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	SEMI-A	YES
HAVE YOU EVER SMOKED		YES	SEMI-A	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	SEMI-A	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	SEMI-A	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	SEMI-A	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	SEMI-A	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	SEMI-A	YES
BLOOD TRANSFUSIONS		YES	SEMI-A	YES
SKIN DISEASE		YES	SEMI-A	YES
PERIPHERAL VASCULAR DISEASE		YES	SEMI-A	YES
HEPATITIS OR JAUNDICE		YES	SEMI-A	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	SEMI-A	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS		YES	SEMI-A	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	SEMI-A	YES
WEIGHT LOSS		YES	SEMI-A	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	SEMI-A	YES
LIVER DISEASE		YES	SEMI-A	YES
KIDNEY DISEASE		YES	SEMI-A	YES
<b>WORK HISTORY OF:</b>				
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	SEMI-A	YES
COMMENTS ON MEDICAL HISTORY:		YES	SEMI-A	YES
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	SEMI-A	YES
BUN AND CREATININE		YES	SEMI-A	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	SEMI-A	YES
COMMENTS ON LABORATORY RESULTS:		YES	SEMI-A	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	SEMI-A	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	SEMI-A	YES
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	SEMI-A	YES
ABDOMEN		YES	SEMI-A	YES
KIDNEY		YES	SEMI-A	YES
LIVER		YES	SEMI-A	YES
SPLEEN		YES	SEMI-A	YES
RESPIRATORY SYSTEM		YES	SEMI-A	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	SEMI-A	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	SEMI-A	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	SEMI-A	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	SEMI-A	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	SEMI-A	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	SEMI-A	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	SEMI-A	YES
RECOMMENDATIONS:		YES	SEMI-A	YES

#### PROGRAM DESCRIPTION:

This program is for anyone employed in vinyl chloride or polyvinyl chloride manufacturing. Abnormal laboratory test results should be repeated as soon as practicable, preferably within 3-4 weeks. If tests remain abnormal, consideration should be given to removal of the employee from contact with vinyl chloride, while a more comprehensive examination is made.

REFERENCES; (1); (OTHER); 1. 29 CFR 1910.1017, VINYL CHLORIDE; 2. Vinyl Chloride Toxicity, In: Case Studies in Environmental Medicine, Agency for Toxic Substances and Disease Registry, Scandinavian Journal Work Environmental Health 1988;14:61-78. 13. PROGRAM REVISED 8/90.

204 VINYL CHLORIDE ANY EXPOSURE (CHLOROETHENE)

STRESSOR(S) IN THIS PROGRAM:  
VINYL CHLORIDE

NIOSH # CAS #  
KU9625000 75-01-4

PROGRAM FREQUENCIES: ANNUAL

OSHA STANDARD 29 CFR 1910.1017

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY	YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY	YES	ANNUAL	YES
CANCER	YES	ANNUAL	YES
BACK INJURY	YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	YES
HAVE YOU EVER SMOKED	YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	YES
BLOOD TRANSFUSIONS	YES	ANNUAL	YES
SKIN DISEASE	YES	ANNUAL	YES
PERIPHERAL VASCULAR DISEASE	YES	ANNUAL	YES
HEPATITIS OR JAUNDICE	YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	YES
TREATMENT WITH STEROIDS OR CANCER (CYTOTOXIC) DRUGS	YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	YES
WEIGHT LOSS	YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS	YES	ANNUAL	YES
LIVER DISEASE	YES	ANNUAL	YES
KIDNEY DISEASE	YES	ANNUAL	YES

WORK HISTORY OF:

EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)

YES ANNUAL YES

COMMENTS ON MEDICAL HISTORY:

YES ANNUAL YES

LABORATORY-

SERUM CHEMISTRY:

LIVER PROFILE TO INCLUDE:

SGOT (AST), TOT. BILI., ALK. PHOS.  
BUN AND CREATININE

YES ANNUAL YES  
YES ANNUAL YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	YES
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	ANNUAL	YES
ABDOMEN		YES	ANNUAL	YES
KIDNEY		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
SPLEEN		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
<b>SPECIAL NOTATIONS:</b>				
SUBSTANCE(S) KNOWN HUMAN CARCINOGEN		YES	ANNUAL	YES
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

This program is for anyone employed in vinyl chloride or polyvinyl chloride manufacturing. Abnormal laboratory test results should be repeated as soon as practicable, preferably within 3-4 weeks. If tests remain abnormal, consideration should be given to removal of the employee from contact with vinyl chloride, while a more comprehensive examination is made.

REFERENCES; (1); (OTHER); 1. 29 CFR 1910.1017, VINYL CHLORIDE; 2. Vinyl Chloride Toxicity, In: Case Studies in Environmental Medicine, Agency for Toxic Substances and Disease Registry, Scandinavian Journal Work Environmental Health 1988;14:61-78. 13. PROGRAM REVISED 8/90.

## 205 XYLENE

STRESSOR(S) IN THIS PROGRAM:  
XYLENE (O-,M- AND P- ISOMERS)

NIOH # CAS #  
ZE2100000 130-20-7

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
--------------	--------------------	--------------	--------------	--------------

MEDICAL HISTORY:

PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY	YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY	YES	ANNUAL	NO
CANCER	YES	ANNUAL	NO
BACK INJURY	YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)	YES	ANNUAL	NO
HAVE YOU EVER SMOKED	YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)	YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)	YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	YES	ANNUAL	NO
SKIN DISEASE	YES	ANNUAL	NO
HEPATITIS OR JAUNDICE	YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)	YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS	YES	ANNUAL	NO
NAUSEA OR VOMITING	YES	ANNUAL	NO
LIVER DISEASE	YES	ANNUAL	NO
KIDNEY DISEASE	YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS	YES	ANNUAL	NO
MIGRAINE HEADACHE	YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY	YES	ANNUAL	NO

WORK HISTORY OF:

EXP TO SKIN IRRITANTS	YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS	YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)	YES	ANNUAL	NO

COMMENTS ON MEDICAL HISTORY: YES ANNUAL NO

LABORATORY-

HEMATOLOGY:

COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)	YES	ANNUAL	NO
DIFFERENTIAL WHITE BLOOD CELL COUNT	YES	ANNUAL	NO

SERUM CHEMISTRY:

LIVER PROFILE TO INCLUDE:

SGOT (AST), TOT. BILI., ALK. PHOS.	YES	NO	NO
------------------------------------	-----	----	----



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100.15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (2); (3); (4); (OTHER); 1. NIOSH criteria for a recommended standard...Occupational Exposure to Xylene DHEW Pub. No. 75-168; 2. Key MM et al., (ed.) Occupational Diseases, A guide to Their Recognition, NIOSH, 1977, 243; 3. Federal Register FR 54:2477 29CFR 1910 Air Contaminants, Final Rule 19 JAN 89. PROGRAM REVISED 8/90.

## Physical Stressors

### Introduction

All programs in this section have been reviewed and updated. Program descriptions have been revised and provider comments added. Programs in this section which are based on Navy instructions have those references listed in the program description section. Instructions were current at the time this manual was prepared. It is incumbent on the individual user to ensure that current instructions are available.

Individuals are placed on these programs based on recommendations from Industrial Hygiene and Safety or requirements by management.

The program for Ionizing Radiation had been revised significantly. The stringent requirements for documentation of this exam are not duplicated here. Medical personnel should use the references listed in the program description to meet program requirements. The program is included for guidance on frequency and to provide a source of references.

A program for noise follow-up was added for individuals who require evaluation for Significant Threshold Shift (STS).

### Physical Stressors

- Cold
- Heat
- Noise
- Noise Follow-up
- Radiation - Ionizing
- Radiation - Laser (Class III and IV)
- Radiation - Radiofrequency and Microwave
- Segmental Vibration
- Sight Conservation
- Whole Body Vibration

501 COLD

PROGRAM FREQUENCY: BIENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	BI-ENN	NO
MAJOR ILLNESS OR INJURY		YES	BI-ENN	NO
HOSPITALIZATION OR SURGERY		YES	BI-ENN	NO
CANCER		YES	BI-ENN	NO
BACK INJURY		YES	BI-ENN	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	BI-ENN	NO
HAVE YOU EVER SMOKED		YES	BI-ENN	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	BI-ENN	NO
DO YOU USE SMOKELESS TOBACCO		YES	BI-ENN	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	BI-ENN	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	BI-ENN	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	BI-ENN	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	BI-ENN	NO
BLOOD DISEASES (ANEMIA)		YES	BI-ENN	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	BI-ENN	NO
SKIN DISEASE		YES	BI-ENN	NO
PERIPHERAL VASCULAR DISEASE		YES	BI-ENN	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	BI-ENN	NO
COLD INJURY (FROSTBITE, CHILL, TRENCH FT, HYPOTHERMIA)		YES	BI-ENN	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	BI-ENN	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	BI-ENN	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	BI-ENN	NO
MENTAL/EMOTIONAL ILLNESS		YES	BI-ENN	NO
COMMENTS ON MEDICAL HISTORY:		YES	BI-ENN	NO
LABORATORY-				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	BI-ENN	NO
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	***	NO
COMMENTS ON LABORATORY RESULTS:		YES	BI-ENN	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	BI-ENN	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CARDIOVASCULAR SYSTEM		YES	BI-ENN	NO
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	BI-ENN	NO
RESPIRATORY SYSTEM		YES	BI-ENN	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	BI-ENN	NO
THYROID		YES	BI-ENN	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	BI-ENN	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	BI-ENN	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	BI-ENN	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	BI-ENN	NO
RECOMMENDATIONS:		YES	BI-ENN	NO

#### PROGRAM DESCRIPTION:

REFERENCES: (3); (OTHER); 1. Weiner, SC, Barrett JB, Trauma Management for Civilian and Military Physicians, WB Saunders, Phila., 1986; 2. NAVMED P-5052-29 "COLD INJURY"; 3. Threshold Limit Values and Biological Exposure Limits, Cincinnati, OH: American Conference of Government Industrial Hygienists; 1989:81-91. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

A worker should be entered on this program if exposed to temperatures below (-)1 degree Centigrade for ten or more days in a quarter or for more than 30 days a year.

The general nutrition status of the individual should be evaluated.

Use of the following medications should be included in the screening; nitrate medications, barbiturates, tranquilizers, vasoactive drugs, and diuretics.

\*\*\*An EKG is probably not routinely needed in personnel under 40 years of age unless there are risk factors for, or a history of, cardiovascular disease. For those under 40, the EKG should be obtained at the discretion of the examiner.

The ACGIH handbook of Threshold Limit Values states: Employees shall be excluded from work in cold at (-)1 degree Centigrade (30 degrees F) or below if they are suffering from diseases or taking medication which interferes with normal body temperature regulation or reduces tolerance to work in cold environments. Workers who are routinely exposed to temperatures below (-)24 degrees C (-10 degrees F) with wind speeds less than five miles per hour, or air temperatures below (-)18 degrees C (0 degrees F) with wind speeds above five miles per hour, should be medically certified as suitable for such exposures.

Trauma sustained in freezing or subzero conditions requires special attention because an injured worker is predisposed to secondary cold injury. Special provision must be made to prevent hypothermia and secondary freezing of damaged tissues in addition to providing for first aid treatment.

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEAT INJURY (CRAMPS, EXHAUSTION, STROKE)		YES	ANNUAL	NO
EXPOSURE (ACCLIMATIZATION) TO HEAT		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITHOUT MICROSCOPIC		YES	ANNUAL	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	***	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
KIDNEY		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
SKIN, WITH REGARD TO MALIGNANT & PRE-MALIGNANT COND		YES	ANNUAL	NO
THYROID		YES	ANNUAL	NO
OBESITY		YES	ANNUAL	NO
OVERALL PHYSICAL FITNESS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); NIOSH Criteria for a Recommended Standard:  
Occupational Exposure to Hot Environments, Revised Criteria, 1986, DHHS  
(NIOSH) Pub. No. 86-113. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

\*\*\*EKG may be indicated in workers under age 40 when there are  
cardiovascular risk factors or other indications present.

In addition to use of anticholinergic drugs, individuals should be  
screened for use of other medications including; nitrate medications,  
tricyclic antidepressants, MAO inhibitors, amphetamines, diuretics and  
antihistamines.

---

503 NOISE

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.95

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
RINGING IN THE EAR (TINNITUS)		YES	ANNUAL	YES
RUPTURED EAR DRUM		YES	ANNUAL	YES
LOSS OR CHANGE IN HEARING		YES	ANNUAL	YES
WORK HISTORY OF:				
EXPOSURE TO EXCESSIVE NOISE		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY-				
AUDIOLOGY-				
AUDIOGRAM		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
HEARING CONSERVATION:				
HAS BASELINE BEEN REESTABLISHED DUE TO PTS?		YES	ANNUAL	YES
HIGH FREQUENCY AVERAGE EXCEEDS 45 dB BILATERALLY?		YES	ANNUAL	YES
EAR PLUGS FITTED AND ISSUED?		YES	ANNUAL	YES
REFER TO AUDIOLOGIST OR PHYSICIAN?		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

Individuals are entered on this program based on the results of industrial hygiene surveys. In the absence of IH data, individuals exposed to sound levels greater than 84 dB(A) or 140 dB peak sound pressure level for impact or impulse noise shall be considered at risk and included in the hearing conservation program. REFERENCES: (OTHER); 1. OPNAV 5100.23B, Chapter 18; 2. OPNAV 5100.19B, Chapter B4; 3. NAVMEDCOMINST 6260.5, Occupational Noise Control and Hearing Conservation, 26 April 1984; 4. 29 CFR 1910.95; 5. DODINST 6055.12, DoD Hearing Conservation Program, March 26, 1991. PROGRAM REVISED 8/91.

**PROVIDER COMMENTS:**

Tympanogram may be useful in identifying individuals with conductive rather than sensorineural hearing loss.

Individuals with a high-frequency average loss greater than 45 dB bilaterally may have problems with speech discrimination.

---

**512 NOISE - FOLLOW UP**

**PROGRAM FREQUENCY:** BASED ON RESULTS OF ANNUAL MONITORING

**OSHA STANDARD** 29 CFR 1910.95

<b>EXAM ELEMENT</b>	<b>ELEMENT GIVEN FOR:</b>	<b>PERI ODIC</b>
<b>MEDICAL HISTORY:</b>		
<b>PERSONAL HISTORY OF:</b>		
RINGING IN THE EAR (TINNITUS)		***
RUPTURED EAR DRUM		***
LOSS OR CHANGE IN HEARING		***
<b>COMMENTS ON MEDICAL HISTORY:</b>		***
<b>LABORATORY-</b>		
<b>AUDIOLOGY-</b>		
AUDIOGRAM - 15 Hr/40 Hr NOISE FREE		***
<b>COMMENTS ON LABORATORY RESULTS:</b>		***
<b>PHYSICAL EXAMINATION:</b>		
EARS (TYMPANIC MEMBRANES)		***
OTHER APPROPRIATE EXAMINATION (SPECIFY)		***
<b>COMMENTS ON PHYSICAL EXAMINATION:</b>		***
<b>SPECIAL REQUIREMENTS:</b>		
<b>HEARING CONSERVATION:</b>		
HAS BASELINE BEEN REESTABLISHED DUE TO PTS?		***
HIGH FREQUENCY AVERAGE EXCEEDS 45 dB BILATERALLY?		***
EAR PLUGS FITTED AND ISSUED?		***
REFER TO AUDIOLOGIST OR PHYSICIAN?		***
<b>SPECIAL NOTATIONS:</b>		
WRITTEN NOTIFICATION OF PERMANENT THRESHOLD SHIFT REQUIRED		***
<b>RECOMMENDATIONS:</b>		***

---

**PROGRAM DESCRIPTION:**

\*\*\*This program is designed for follow up when a significant threshold shift (STS), occurs at the monitoring audiogram. REFERENCES: (OTHER);

1. OPNAV 5100.23B, Chapter 18;
2. OPNAV 5100.19B, Chapter B4;
3. NAVMEDCOMINST 6260.5, Occupational Noise Control and Hearing Conservation, 26 April 1984;
4. 29 CFR 1910.95;
5. DODINST 6055.12, DoD Hearing Conservation Program, March 26, 1991. PROGRAM REVISED 8/91.

**PROVIDER COMMENTS:**

Screening tympanometry can be used to determine if the STS has resulted from middle ear pathology.

Individuals with a high-frequency average loss greater than 45 dB bilaterally may have problems with speech discrimination.

Guidelines for follow-up and referral are contained in the NAVOSH Program Manuals listed in the program description.

A sample format for written notification of permanent threshold shift is in Appendix F, F-7.



---

505      RADIATION - IONIZING

PROGRAM FREQUENCY:

<25:     NONE AFTER PE  
25-49:   EVERY FIVE YEARS  
50-59:   EVERY TWO YEARS  
>59:     ANNUALLY

---

PROGRAM DESCRIPTION:

This program is designated solely to provide guidance on scheduling frequency and references. Tests and forms required are promulgated in: (1) Radiation Health Protection Manual, NAVMED P-5055 and (2) Manual of the Medical Department NAVMED P-117, Chapter 15, Article 15-68, Change 104.  
PROGRAM REVISED 4/91.

---

506 RADIATION - LASER (CLASS III+IV)

PROGRAM FREQUENCY: TRIENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	TRI-ENN	YES
MAJOR ILLNESS OR INJURY		YES	TRI-ENN	YES
HOSPITALIZATION OR SURGERY		YES	TRI-ENN	YES
CANCER		YES	TRI-ENN	YES
BACK INJURY		YES	TRI-ENN	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	TRI-ENN	YES
HAVE YOU EVER SMOKED		YES	TRI-ENN	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	TRI-ENN	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	TRI-ENN	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	TRI-ENN	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	TRI-ENN	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	TRI-ENN	YES
SKIN DISEASE		YES	TRI-ENN	YES
CHANGE OR LOSS OF VISION		YES	TRI-ENN	YES
CONTACT LENS USE		YES	TRI-ENN	YES
LENS SURGERY		YES	TRI-ENN	YES
PHOTOSENSITIZING MEDICATIONS		YES	TRI-ENN	YES
UNUSUAL SENSITIVITY TO SUNLIGHT		YES	TRI-ENN	YES
CATARACTS		YES	TRI-ENN	YES
EYE IRRITATION		YES	TRI-ENN	YES
EYE INJURY		YES	TRI-ENN	YES
GLAUCOMA		YES	TRI-ENN	YES
WORK HISTORY OF:				
EXP TO NON-IONIZING RADIATION (LASER, IR, MW, UV)		YES	TRI-ENN	YES
EYE INJURY		YES	TRI-ENN	YES
COMMENTS ON MEDICAL HISTORY:		YES	TRI-ENN	YES
LABORATORY-				
OPTOMETRY-				
CURRENT REFRACTION PRESCRIPTION - WHEN APPLICABLE		YES	TRI-ENN	YES
DATE OF MOST RECENT EXAMINATION		YES	TRI-ENN	YES
VISION SCREEN (VISUAL ACUITY)		YES	TRI-ENN	YES
EXTERNAL OCULAR AND FUNDUS EXAMINATION		YES	TRI-ENN	YES
COMMENTS ON LABORATORY RESULTS:		YES	TRI-ENN	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	TRI-ENN	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	TRI-ENN	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	TRI-ENN	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	TRI-ENN	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	TRI-ENN	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	TRI-ENN	YES
RECOMMENDATIONS:		YES	TRI-ENN	YES

#### PROGRAM DESCRIPTION:

This program has a frequency of 36 months (tri-ennial) to identify effects of acute exposures which may not be otherwise identified. The baseline is given prior to duty assignment involving Class III or IV lasers and the termination examination is given as soon as practicable upon separation or termination of employment. REFERENCES: (OTHER); 1. NAVMEDCOMINST 6470.2A, Laser Radiation Medical Surveillance Program, 28 MAR 89; 2. ANSI 2136.1 of 1986. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Incidental personnel must have documented in their medical record a visual acuity examination. Incidental personnel are described as those personnel whose work makes it possible, but unlikely, that they will be exposed to sufficient laser energy to damage their eyes.

507 RADIATION - RADIOFREQUENCY AND MICROWAVE

STRESSOR(S) IN THIS PROGRAM:  
RADIOFREQUENCY RADIATION

NIOSH # CAS #

PROGRAM FREQUENCY: BASELINE AND TERMINATION

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	NO	YES
MAJOR ILLNESS OR INJURY		YES	NO	YES
HOSPITALIZATION OR SURGERY		YES	NO	YES
CANCER		YES	NO	YES
BACK INJURY		YES	NO	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	NO	YES
HAVE YOU EVER SMOKED		YES	NO	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	NO	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	NO	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	NO	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	NO	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	NO	YES
CHANGE OR LOSS OF VISION		YES	NO	YES
CONTACT LENS USE		YES	NO	YES
LENS SURGERY		YES	NO	YES
CATARACTS		YES	NO	YES
EYE IRRITATION		YES	NO	YES
EYE INJURY		YES	NO	YES
GLAUCOMA		YES	NO	YES
<b>WORK HISTORY OF:</b>				
EXP TO NON-IONIZING RADIATION (LASER, IR, MW, UV)		YES	NO	YES
EYE INJURY		YES	NO	YES
COMMENTS ON MEDICAL HISTORY:		YES	NO	YES
<b>LABORATORY-</b>				
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	NO	YES
COMMENTS ON LABORATORY RESULTS:		YES	NO	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	NO	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	NO	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	NO	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	NO	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	NO	YES
RECOMMENDATIONS:		YES	NO	YES

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); 1. OPNAVINST 5100.23B, Chapter 22; 2. OPNAVINST 5100.19B, Chapter B-9. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

A situational examination is required for personnel who may have been exposed to RFR levels that exceed five times the PEL. Both references listed contain recommendations for situational exams.

## 508 SEGMENTAL VIBRATION

STRESSOR(S) IN THIS PROGRAM:  
HAND-ARM (SEGMENTAL) VIBRATION

NIOSH # CAS #

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
DO YOU USE SMOKELESS TOBACCO		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
PERIPHERAL VASCULAR DISEASE		YES	ANNUAL	NO
COLD INJURY (FROSTBITE, CHILL, TRENCH FT, HYPOTHERMIA)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	ANNUAL	NO
VIBRATION WHITE FINGER DISEASE		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO VIBRATION (SEGMENTAL OR WHOLE BODY)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	NO
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); Criteria for a recommended standard...Occupational Exposure to Hand-Arm Vibration, NIOSH Sept 1989.  
PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Smoking plays a significant role in the development of hand-arm vibration syndrome. Individuals who smoke should be counseled in smoking cessation.

Symptoms of peripheral vascular and neurological disease can be documented using a standard staging system so as to provide a quantitative description of the involvement of the vascular/neurological system. Workers in stage 2 HAVS or above on the Stockholm Workshop classification scale should be considered for removal from exposure until signs and symptoms no longer meet the criteria for stage 1.

---

The Stockholm Workshop classification scale for cold-induced peripheral vascular symptoms in the hand-arm vibration syndrome.\*,+

Stage	Description
0	No attacks
1	Occasional attacks that affect only the tips of one or more fingers
2	Occasional attacks that affect the distal and middle (rarely also proximal) phalanges of one or more fingers
3	Frequent attacks affecting all phalanges of most fingers
4	As in stage 3, with trophic skin changes in the finger tips

---

The Stockholm Workshop classification scale for sensorineural stages of the hand-arm vibration syndrome.\*,+

Stage	Description
OSN	Exposed to vibration but no symptoms
1SN	Intermittent numbness, with or without tingling
2SN	Intermittent or persistent numbness, reduced sensory perception
3SN	Intermittent or persistent numbness, reduced tactile discrimination and/or manipulative dexterity

---

\*Adapted from Brammer et al. (1987)

+The sensorineural stage is determined separately for each hand.

Source: Criteria for a Recommended Standard...Occupational Exposure to Hand-Arm Vibration, National Institute for Occupational Safety and Health, Sept 1989.

---

**510 SIGHT CONSERVATION**

---

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
CONTACT LENS USE		YES	ANNUAL	NO
CATARACTS		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
GLAUCOMA		YES	ANNUAL	NO
WORK HISTORY OF:				
EYE INJURY		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

Program #509, Sight Conservation, from the previous edition is reserved for computer use for scheduling every two year exams. REFERENCES: (OTHER); 1. Medical qualifications Determinations (Chapter 339), Federal Personnel Manual, Office of Personnel Management, Washington, D.C., 1989, 339-A-3 - A-4; 2. Vision Standards and Precision Machinery, Journal of Occupational Medicine, 1989, 31:5-6; 3. OPNAV 5100.23B, Chapter 19; 4. OPNAV 5100.19B, Chapter B5. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Physical requirements of the individual's job should be reviewed when performing sight screening for certification. Color vision and depth perception testing may be added based on the job requirements.



---

511      WHOLE BODY VIBRATION

PROGRAM FREQUENCY:    ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
PERIPHERAL VASCULAR DISEASE		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NAUSEA OR VOMITING		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
PROBLEMS WITH URINATION/BLOOD IN URINE		YES	ANNUAL	NO
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
VIBRATION WHITE FINGER DISEASE		YES	ANNUAL	NO
WORK HISTORY OF:				
EXP TO VIBRATION (SEGMENTAL OR WHOLE BODY)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	ANNUAL	NO
VARICOSE VEINS OF LOWER EXTREMITIES		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
ABDOMEN		YES	ANNUAL	NO
GENITOURINARY TRACT		YES	ANNUAL	NO
HEMORRHOIDS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (1); (OTHER); Seidel H., Heide R., Long-term effects of whole-body vibration; a critical survey of the literature, Archives of Occupational Environmental Health, 1980:58:1-26. PROGRAM REVISED 8/90.

## Mixed Exposures

### Introduction

Mixed exposures were included in a separate section to give guidance for screening of individuals whose specific exposure may not be known. Individuals should be placed in a Mixed Exposures program only in the absence of quantitative data from Industrial Hygiene on specific exposures. Workers who are in job categories which include tasks of welding, painting, machining or metal work may be included in one of these programs.

When Industrial Hygiene data are available, workers should be entered on the appropriate program for the specific stressor to which they may be exposed.

### Mixed Exposures

Acid/Alkali (pH <4.0 or >11.0)  
Metal Fumes  
Mixed Solvents

601 ACID/ALKALI (PH<4.0/PH>11.0)

STRESSOR(S) IN THIS PROGRAM: N/A  
 SULFURIC ACID  
 HYDROGEN CHLORIDE  
 NITRIC ACID

NIOSH # CAS #  
 WS5600000 7664-939  
 MW4025000 7647-01-0  
 QU5775000 7697-37-2

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
PERIPHERAL VASCULAR DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
CONTACT LENS USE		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
TOOTH OR GUM DISEASE		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO HYDROGEN FLUORIDE OR INORGANIC FLUORIDES		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
GUMS (E.G. LEAD LINES?)		YES	ANNUAL	NO
TEETH (ACID EROSION)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (3); (4). PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Sulfuric acid, nitric acid and sodium hydroxide were in separate programs in Edition 3 of this manual. Personnel exposed to other acid/alkali of pH <4 or >11 should also be in this program.

602 METAL FUMES

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
CATARACTS		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
PERFORATION OF NASAL SEPTUM		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COUGH (DRY OR PRODUCTIVE)		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO LEAD		YES	ANNUAL	NO
EXP TO CHROMIUM OR CHROMIC ACID		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITHOUT MICROSCOPIC		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>RADIOLOGY:</b>				
CHEST X-RAY (PA)		YES	NO	NO
<b>SPIROMETRY:</b>				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
MUCOUS MEMBRANES		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

REFERENCES: (OTHER); 1. NIOSH Criteria for a Recommended Standard...Welding, Brazing, and Thermal Cutting. Washington, D.C. U.S. Department of Health and Human Services; 1988. DHHS (NIOSH) Pub. No. 88-110. 2. Pierce JO. Metal Fume Fever. In: Parmeggiani L, ed. Encyclopedia of Occupational Health and Safety, volume 2. Third Edition, Geneva: International Labor Office, 1983:1339-1340. 3. NOTE: References for specific metals are listed in the appropriate programs. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

This program is focused toward nonspecific dust, fumes and other irritants as well as potential UV effects experienced by welders. Specific programs in addition to this one will depend on individual exposures and may include; lead, cadmium, chromium, nickel, manganese and others.

## 603 MIXED SOLVENTS

	NIOSH#	CAS#
CYCLOHEXANONE	GW1050000	108-94-1
GLYCOL ETHERS (OTHER THAN ETHOXY AND METHOXY)		
HEXONE (METHYL ISOBUTYL KETONE)	SA9275000	108-10-1
METHYL N-AMYL KETONE	MJ5075000	110-43-0
2-PENTANONE (METHYL PROPYL KETONE)	SA7875000	107-87-9

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CONTACT LENS USE		YES	ANNUAL	NO
EYE IRRITATION		YES	ANNUAL	NO
EYE INJURY		YES	ANNUAL	NO
LIVER DISEASE		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
WORK HISTORY OF:				
EYE INJURY		YES	ANNUAL	NO
EXP TO SKIN IRRITANTS		YES	ANNUAL	NO
EXP TO SOLVENTS (MEK, PERC, TCE, TOLUENE...)		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	NO
BUN AND CREATININE		YES	ANNUAL	NO
SGOT (AST)		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA)		YES	ANNUAL	NO
LIVER		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

When industrial hygiene data document exposure to specific stressors, i.e., lead or chromium, individuals should be entered on the appropriate programs for specific stressors. REFERENCES: (1); (2); (OTHER); 1. NIOSH Current Intelligence Bulletin 48: Organic Solvent Neurotoxicity. U.S. Department of Health and Human Services; 1987. DHHS (NIOSH) Publication No. 87-104. 2. NOTE: References for specific solvents are listed in the appropriate programs. PROGRAM REVISED 8/90.

## **Certification Examinations Introduction**

Requirements for performing certification examinations are included in instructions, Federal Personnel Manuals, Civilian Personnel Instructions and federal and state laws. Instructions, technical manuals and publications used for this edition were current at the time of revision. Users of this manual must ensure that they have most current issue of the appropriate reference.

Every effort was made in preparing this section of the manual to include the minimum examination requirements. Medical personnel will then be able to add tests needed to meet the requirements of local and state law or activity imposed requirements.

Requirements for drivers were divided into two programs based on the source for qualification. Those drivers who are required to meet the physical and licensing requirements of Department of Transportation are included in "Department of Transportation (DOT) Vehicle Operators" program. Workers covered by this program will also include explosive ordnance handlers and drivers since the requirement for their certification is also based on U.S. Department of Transportation, Federal Motor Carrier Safety Regulations. Drivers who are not required to meet DOT licensing and physical standards are included in the program for Motor Vehicle Operators. Licensing personnel can assist in determining the requirements for different drivers at each activity.

Where strict instructions mandate program documentation, programs are maintained in this manual only for guidance on scheduling and to provide appropriate references. These programs are; Aviation, Diver/Hyperbaric Worker, Firefighter Instructor, Submarine Duty and Preplacement/Preemployment.

## **Certification Examinations**

Aviation (scheduling requirements	Forklift Operator
Child Care Worker	Freon Workers
Construction, Railroad, and Weight	Hazardous Waste Workers and
Handling Equipment Operators	Emergency Responders
Department of Transportation (DOT)	Health Care Worker
Vehicle Operators	Motor Vehicle Operator
Diver/Hyperbaric Worker (scheduling	(Other than DOT)
requirements and references only)	Naval Investigative Service
Firefighter	Police/Guard Security
Firefighter Instructor	Preplacement/Preemployment
Foodservice Personnel	Submarine Duty
	Wastewater/Sewage Worker

---

701 AVIATION

PROGRAM FREQUENCY: BY AGE

AGE 39 AND UNDER - TRIENNIAL

AGE 40 AND OVER - ANNUAL

---

PROGRAM DESCRIPTION:

This program is designed solely to provide guidance in scheduling frequency and references. Medical examination is recorded on SF-88 and SF-93 or NAVMED 6130/2 (as appropriate). Detailed guidance is contained in Manual of the Medical Department, NAVMED P-117, Chapter 15, Article 15-65, Change 104. PROGRAM REVISED 4/91.

PROVIDER COMMENTS:

This exam can only be performed by flight surgeons and aviation medical officers.

703 CHILD CARE WORKER

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
HEPATITIS OR JAUNDICE		YES	ANNUAL	NO
TUBERCULOSIS		YES	ANNUAL	NO
INFECTIOUS DISEASE		YES	ANNUAL	NO
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>ADDITIONAL LAB TESTS:</b>				
RPR		YES	ANNUAL	NO
TUBERCULOSIS SCREEN		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
<b>QUALIFICATIONS:</b>				
CURRENT IMMUNIZATIONS		YES	ANNUAL	NO
MEASLES/MUMPS/RUBELLA IMMUNE STATUS		YES	ANNUAL	NO
ASSESSMENT:		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); 1. Personnel health requirements are defined in OPNAVINST 1700.9C, Child Development Programs. 2. Current recommendations for immunizations are contained in NAVMEDCOMINST 6260.3, Immunizations and Chemoprophylaxis. 3. NAVMEDCOMINST 6224.1, Tuberculosis Control Program, outlines management of tuberculosis testing programs. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

The immunization requirements promulgated by the various references can be summarized as follows:

- A. Immunizations against polio, tetanus and diphtheria must be current.
- B. Immunity to measles, mumps and rubella is required. This requirement can be met by documentation of physician-diagnosed illness (except rubella), serologic evidence of immunity, or documented immunization (for measles, 2 doses one month apart after 1 year of age on individuals born on or after 1957 is required).
- C. It may be reasonable to obtain rubella antibody titer for females of child bearing age as part of pre-employment exam.
- D. Specific requirements are outlined in the instructions listed in the program description.
- E. Unusual circumstances such as an outbreak, may necessitate additional requirements.

The purpose of the exam is to identify potentially communicable conditions. Scope of the exam would depend on results of the history, local public health requirements and communicable disease risk specific to the area.

---

704 CONSTRUCTION, RAILROAD AND WEIGHT HANDLING EQUIPMENT OPERATORS

OCCUPATIONS IN THIS PROGRAM: CRANE OPERATORS  
RAILROAD EQUIPMENT OPERATORS  
CONDUCTORS  
BRAKEMEN

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
LOSS OR CHANGE IN HEARING		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
MIGRAINE HEADACHE		YES	ANNUAL	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
AUDIOLOGY-				
AUDIOGRAM		YES	ANNUAL	NO
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COLOR VISION		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
EARS (TYMPANIC MEMBRANES)		YES	ANNUAL	NO
OVERALL PHYSICAL FITNESS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

**PROGRAM DESCRIPTION:**

REFERENCES: (OTHER); 1. NAVFAC P-306, TESTING AND LICENSING OF WEIGHT HANDLING AND CONSTRUCTION EQUIPMENT OPERATORS, SEPT 1978; 2. FPM 930, Programs for Specific Programs and Examinations (Miscellaneous). PROGRAM REVISED 8/90.

706 DEPARTMENT OF TRANSPORTATION (DOT) VEHICLE OPERATORS

OCCUPATIONS IN THIS PROGRAM:

DOT VEHICLE OPERATORS  
EXPLOSIVE ORDNANCE HANDLERS  
EXPLOSIVE ORDNANCE DRIVERS

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 49 CFR 391.41-49

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	NO
SYPHILIS OR GONORRHEA		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
NERVOUS STOMACH OR ULCER		YES	ANNUAL	NO
HEAD INJURY		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
LOSS OR CHANGE IN HEARING		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
KIDNEY DISEASE		YES	ANNUAL	NO
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
MIGRAINE HEADACHE		YES	ANNUAL	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
TREATMENT FOR DRUG OR ALCOHOL USE		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
MUSCLE OR JOINT PROBLEMS		YES	ANNUAL	NO
PERMANENT DEFECT FROM ILLNESS, DISEASE OR INJURY		YES	ANNUAL	NO
FAMILY HISTORY OF:				
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO



EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>LABORATORY-</b>				
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
<b>AUDIOLOGY-</b>				
AUDIOGRAM		YES	ANNUAL	NO
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COLOR VISION		YES	ANNUAL	NO
VISUAL FIELDS		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	NO
EXTREMITIES		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
PERIPHERAL VASCULAR SYSTEM (RAYNAUD'S)		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
ABDOMEN		YES	ANNUAL	NO
GENITOURINARY TRACT		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
EARS (TYMPANIC MEMBRANES)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/157		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

Physical qualifications are contained in Federal Motor Carrier Safety Regulations, 49 CFR 391.41-49. A handbook containing the regulations can be ordered from: American Trucking Association 2200 Mill road, Alexandria, VA. 22314-4677, 1-800-ATA-LINE. REFERENCES: (OTHER); 1. 49 CFR 391.41-49; 2. NAVSEA Ordnance Pub. 2239, Motor Vehicle Driver's Handbook, Ammunition, Explosives and Related Materials. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

This program is designed to provide guidance for physical standards of drivers who must meet the requirements from the Federal Department of Transportation. Activities must be familiar with individual state Department of Transportation motor vehicle operator requirements since some state requirements may be more stringent. Licensing officials in Public Works, Ordnance Department, Safety, Civilian Personnel or Navy Supply can assist in determining the state requirements.

---

**705 DIVER/HYPERBARIC WORKER**

**PROGRAM FREQUENCY: EVERY FIVE YEARS TO AGE 45  
EVERY TWO YEARS AFTER AGE 45**

---

**PROGRAM DESCRIPTION:**

This program is designated solely to provide guidance on scheduling frequency. Tests and forms required are promulgated in Manual of the Medical Department, NAVMED P-117, Chapter 15, Article 15-66, Change 104. PROGRAM REVISED 4/91.

**PROVIDER COMMENTS:**

Examinations must be performed by a medical officer or DOD civilian physician. Examinations not performed by diving medical officer, undersea medical officer, or a clinical hyperbaric medical officer will be forwarded to CHBUMED (MED-21) for review and approval.

707 FIREFIGHTER

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEPATITIS OR JAUNDICE		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
TUBERCULOSIS		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
CHANGE OR LOSS OF VISION		YES	ANNUAL	YES
LOSS OR CHANGE IN HEARING		YES	ANNUAL	YES
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	ANNUAL	YES
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	YES
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	YES
<b>WORK HISTORY OF:</b>				
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
EXP TO POTENTIALLY INFECTIOUS BODY FLUIDS		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
<b>SERUM CHEMISTRY:</b>				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS.		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
CHOLESTEROL		YES	PENTA-E	YES
SGOT (AST)		YES	ANNUAL	YES
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	YES
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	***	YES
AUDIOLOGY-				
AUDIOGRAM		YES	ANNUAL	YES
RADIOLOGY-				
CHEST X-RAY (PA)		YES	NO	YES
SPIROMETRY-				
SPIROMETRY (FVC, FEV1, FEV1/FVC)		YES	ANNUAL	YES
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	YES
COLOR VISION		YES	ANNUAL	YES
DEPTH PERCEPTION		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
GENITOURINARY TRACT		YES	ANNUAL	YES
LIVER		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
EARS (TYMPANIC MEMBRANES)		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
THYROID		YES	ANNUAL	YES
METABOLIC DISTURBANCE (FEVER, TACHYCARDIA)		YES	ANNUAL	YES
OVERALL PHYSICAL FITNESS		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL REQUIREMENTS:				
QUALIFICATIONS:				
CURRENT IMMUNIZATIONS		YES	ANNUAL	YES
IS HEPATITIS B VACCINE SERIES COMPLETE OR		YES	ANNUAL	YES
PRIOR INFECTION DOCUMENTED?				
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON		YES	ANNUAL	YES
OPNAV 5100/15?				
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

---

**PROGRAM DESCRIPTION:**

\*\*\*EKG for workers over age 34. Workers who have not had an examination within 12 months should have a termination examination. REFERENCE: (OTHER); 1. Qualification Standards, Fire Protection and Prevention Series, GS-081, May 1989; 2. NAVENVIRHLTHCEN ltr 6260, Ser 3212mt/07281, 13 Jul 90, Policy and Recommendations Regarding Cardiovascular Evaluation of Employees; 3. 54FR 23042, May 30, 1989 Proposed OSHA rule governing occupational exposure to bloodborne pathogens; DHHS (NIOSH), Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health-care and public-safety workers, 1989, Pub. No. 89-107, U.S. Government Printing Office, Washington, D.C.; 4. 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response. PROGRAM REVISED: 8/90.

**PROVIDER COMMENTS:**

Current NIOSH Guidelines and a likely OSHA Regulation consider public safety workers, including both policemen and firefighters at risk for exposure to bloodborne pathogens. This risk is not universal since duties of public safety workers vary greatly between departments and locations. The purpose of the requirement for assessment of hepatitis B immune status is to determine for the individual the extent of potential exposure. Those who are felt to be at significant risk may be placed in Program 178, Blood and/or Body Fluids.

---

708     **FIREFIGHTER INSTRUCTOR**

PROGRAM FREQUENCY:   PENTAENNIAL

---

**PROGRAM DESCRIPTION:**

This program is designed solely to provide guidance for scheduling frequency and references. Medical examination is recorded on SF 88 and SF 93. Detailed guidance is contained in Manual of the Medical Department, NAVMED P-117, Chapter 15, Article 15-67 with additional guidance for special studies in Article 15-9. REFERENCES: (OTHER); (1) Manual of the Medical Department, NAVMED P-117, Change 104. PROGRAM REVISED 4/91.

709      FOODSERVICE PERSONNEL

PROGRAM FREQUENCY:    PREPLACEMENT  
 FOLLOWING ABSENCE FROM JOB FOR 30 DAYS OR MORE

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
MAJOR ILLNESS OR INJURY		YES	NO	NO
HOSPITALIZATION OR SURGERY		YES	NO	NO
CANCER		YES	NO	NO
BACK INJURY		YES	NO	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	NO	NO
HAVE YOU EVER SMOKED		YES	NO	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	NO	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	NO	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	NO	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	NO	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	NO	NO
SKIN DISEASE		YES	NO	NO
HEPATITIS OR JAUNDICE		YES	NO	NO
TUBERCULOSIS		YES	NO	NO
INFECTIOUS DISEASE		YES	NO	NO
CHRONIC ABDOMINAL PAIN, VOMITING, OTHER GI SYMPTOMS		YES	NO	NO
COMMENTS ON MEDICAL HISTORY:		YES	NO	NO
<b>LABORATORY-</b>				
<b>ADDITIONAL LAB TESTS:</b>				
APPROPRIATE BY THE PHYSICIAN		YES	NO	NO
COMMENTS ON LABORATORY RESULTS:		YES	NO	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	NO	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	NO	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	NO	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	NO	NO
<b>CERTIFICATIONS PERFORMED IAW:</b>				
NAVVED P-5010		YES	NO	NO
ASSESSMENT:		YES	NO	NO
RECOMMENDATIONS:		YES	NO	NO

---

**PROGRAM DESCRIPTION:**

This program is required for preplacement exam. There is no requirement for a periodic examination. A situational examination is required when the employee has been out of foodservice duties for illness or for non-medical reasons longer than 30 days. REFERENCES: (OTHER); 1. 132200Z DEC 89; 2. Manual of Naval Preventive Medicine NAVMED P-5010. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

The choice of additional examination elements and laboratory tests should be determined locally, based on Public Health regulations, if applicable. Individual considerations such as communicable disease risk in the community and medical and social history of the employee may affect the content of the exam. The concern is to avoid food-borne disease outbreaks. The focus of the exam is to identify potentially communicable conditions.



PROGRAM FREQUENCIES:    TRIENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	TRI-ENN	NO
MAJOR ILLNESS OR INJURY		YES	TRI-ENN	NO
HOSPITALIZATION OR SURGERY		YES	TRI-ENN	NO
CANCER		YES	TRI-ENN	NO
BACK INJURY		YES	TRI-ENN	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	TRI-ENN	NO
HAVE YOU EVER SMOKED		YES	TRI-ENN	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	TRI-ENN	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	TRI-ENN	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	TRI-ENN	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	TRI-ENN	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	TRI-ENN	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	TRI-ENN	NO
HEAD INJURY		YES	TRI-ENN	NO
CHANGE OR LOSS OF VISION		YES	TRI-ENN	NO
LOSS OR CHANGE IN HEARING		YES	TRI-ENN	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	TRI-ENN	NO
EPILEPSY (SEIZURE DISORDER)		YES	TRI-ENN	NO
NEUR DISORDER,GAIT CHANGE,PARESTHESIA,COORD LOSS		YES	TRI-ENN	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	TRI-ENN	NO
MENTAL/EMOTIONAL ILLNESS		YES	TRI-ENN	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	TRI-ENN	NO
PERSONALITY CHANGE		YES	TRI-ENN	NO
COMMENTS ON MEDICAL HISTORY:		YES	TRI-ENN	NO
<b>LABORATORY-</b>				
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	TRI-ENN	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	***	NO
<b>AUDIOLOGY-</b>				
AUDIOGRAM		YES	TRI-ENN	NO
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	TRI-ENN	NO
COLOR VISION		YES	TRI-ENN	NO
DEPTH PERCEPTION		YES	TRI-ENN	NO
VISUAL FIELDS		YES	TRI-ENN	NO
COMMENTS ON LABORATORY RESULTS:		YES	TRI-ENN	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	TRI-ENN	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	TRI-ENN	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	TRI-ENN	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	TRI-ENN	NO
CARDIOVASCULAR SYSTEM		YES	TRI-ENN	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	TRI-ENN	NO
EARS (TYMPANIC MEMBRANES)		YES	TRI-ENN	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	TRI-ENN	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	TRI-ENN	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	TRI-ENN	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	TRI-ENN	NO
RECOMMENDATIONS:		YES	TRI-ENN	NO

#### PROGRAM DESCRIPTION:

\*\*\*EKG over age 39. Frequency of exam is the same as the licensing requirement for operators. REFERENCES: (OTHER); 1. DOD 4145.19-R-1, Storage and Materials Handling, Department of Defense, September 1979. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Certification requirements for operators of Materials Handling Equipment are contained in DOD 4145.19-R-1. Section 5, On the Job Training Course for Operators of MHE, contains guidance for administration of vision, hearing and reaction tests by licensing individuals. A summary of instructions that apply to measuring physical abilities is:

A. Visual Acuity - minimum standard is visual acuity correctable to 20/30 in each eye. Visual acuity of 20/40 or poorer will be referred to a medical examiner for decision on whether or not the individual's vision is sufficient for operation of MHE. Persons with sight in only one eye can operate industrial tractors in open areas, but not in warehouses. Sight in both eyes is required for handling ammunition and explosives.

B. Depth perception test, optional, is used in counselling and training of the operator although there is no minimum standard.

C. A field of vision test with a lateral range of 75 on each side of the focus line is the minimum standard acceptable. If the standard is not met, the medical examiner will determine whether the individual's lateral vision is sufficient for safe operation of MHE.

D. An operator of MHE will not necessarily be disqualified because of colorblindness. However, if there is an indication of colorblindness, the examinee will receive special training.

E. Guidelines for screening state that the examinee should be able to hear conversation, spoken clearly and in a moderate tone, from a distance of 20 feet.

Local activities may have more stringent physical and requirements. Licensing personnel in Naval Supply, Public Works, Civilian Personnel or Safety can provide local policies.

Individuals who operate MHE for handling ammunition and explosives must be examined under Program #706.

## 718 FREON WORKERS

STRESSOR(S) IN THIS PROGRAM:

1,1,2-TRICHLORO-1,2,2,-TRIFLUOROETHANE (FREON - 113)

NIOSH #

KJ4000000

CAS #

76-13-1

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
SKIN DISEASE		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	NO
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

---

**PROGRAM DESCRIPTION:**

Workers exposed to FC-113 at or above the action level, i.e., one half or more of the permissible exposure limits (8-hour TWA) for more than 30 days a year or 10 days a quarter, should be placed in a medical surveillance program and scheduled for annual examinations. Workers should have a preplacement examination if they do not fit the criteria for placement in the medical surveillance program but have potential exposure to FC-113 above the Short Term Exposure Limit (STEL). REFERENCES: (OTHER); 1. Commander, Naval Sea Systems Command letter, 4734/9210 Ser 06C13C/1117 of 29 Oct 85; 2. Federal Register 54FR 2539-2541 Jan 19, 1989; 3. NIOSH Alert, Request for Assistance in Preventing Deaths from Excessive Exposure to Chlorofluorocarbon 113 (CFC-113); Occupational Health Guidelines for Fluorotrichloromethane, DHHS (NIOSH) Publication No. 81-123, January 1981. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

A limited number of freons have cardiac sensitizing effects. Interval history should stress intake of oral medications with cardiac sensitizing effects (epinephrine, norepinephrine, dopamine, isoproterenol and other sympathomimetic drugs used by asthmatics).

711 HAZARDOUS WASTE WORKERS AND EMERGENCY RESPONDERS

PROGRAM FREQUENCY: ANNUAL

OSHA STANDARD 29 CFR 1910.120

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	YES
MAJOR ILLNESS OR INJURY		YES	ANNUAL	YES
HOSPITALIZATION OR SURGERY		YES	ANNUAL	YES
CANCER		YES	ANNUAL	YES
BACK INJURY		YES	ANNUAL	YES
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	YES
HAVE YOU EVER SMOKED		YES	ANNUAL	YES
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	YES
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	YES
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	YES
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	YES
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	YES
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	ANNUAL	YES
SKIN DISEASE		YES	ANNUAL	YES
HEAT INJURY (CRAMPS, EXHAUSTION, STROKE)		YES	ANNUAL	YES
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	ANNUAL	YES
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	YES
COLD INJURY (FROSTBITE, CHILL, TRENCH FT, HYPOTHERMIA)		YES	ANNUAL	YES
CHANGE OR LOSS OF VISION		YES	ANNUAL	YES
LOSS OR CHANGE IN HEARING		YES	ANNUAL	YES
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	YES
SHORTNESS OF BREATH		YES	ANNUAL	YES
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	YES
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	YES
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	YES
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	YES
WORK HISTORY OF:				
EXP TO SKIN IRRITANTS		YES	ANNUAL	YES
EXP TO RESPIRATORY IRRITANTS		YES	ANNUAL	YES
EXP TO CARCINOGENS		YES	ANNUAL	YES
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	YES
LABORATORY				
HEMATOLOGY:				
COMPLETE BLOOD COUNT (HGB, HCT, WBC, MCV, MCH, MCHC)		YES	ANNUAL	YES
DIFFERENTIAL WHITE BLOOD CELL COUNT		YES	ANNUAL	YES
SERUM CHEMISTRY:				
LIVER PROFILE TO INCLUDE:				
SGOT (AST), TOT. BILI., ALK. PHOS		YES	NO	YES
BUN AND CREATININE		YES	ANNUAL	YES
SGOT (AST)		YES	ANNUAL	YES

EXAM ELEMENT	ELEMENT PERFORMED FOR:	BASE LINE	PERI ODIC	TERM EXAM
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	ANNUAL	YES
AUDIOLOGY-				
AUDIOGRAM		YES	ANNUAL	YES
RADIOLOGY:				
CHEST X-RAY (PA)		YES	NO	YES
SPIROMETRY:				
SPIROMETRY (FEV1, FVC, FEV1/FVC)		YES	ANNUAL	YES
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	YES
COLOR VISION		YES	ANNUAL	YES
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	YES
PHYSICAL EXAMINATION:				
VITAL SIGNS		YES	ANNUAL	YES
SPECIAL ATTENTION IN EXAMINATION TO:				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	YES
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	YES
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	YES
CARDIOVASCULAR SYSTEM		YES	ANNUAL	YES
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	YES
RESPIRATORY SYSTEM		YES	ANNUAL	YES
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	ANNUAL	YES
THYROID		YES	ANNUAL	YES
METABOLIC DISTURBANCE (FEVER, TACHYCARDIA)		YES	ANNUAL	YES
OBESITY		YES	ANNUAL	YES
OVERALL PHYSICAL FITNESS		YES	ANNUAL	YES
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	YES
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	YES
SPECIAL NOTATIONS:				
PHYSICIAN'S WRITTEN OPINION REQUIRED		YES	ANNUAL	YES
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	YES
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	YES
RECOMMENDATIONS:		YES	ANNUAL	YES

#### PROGRAM DESCRIPTION:

REFERENCES: (OTHER): 1. OSHA Standard for Medical Surveillance of Hazardous Waste Workers, Occupational Medicine: State of the Art Reviews, Vol 5, No. 1, Jan-Mar 90; 2. 29 CFR 1910.120. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

29 CFR 1910.120 establishes minimal medical surveillance for those personnel who are or may be exposed to hazardous substances at or above the PEL for 30 days per year, wear a respirator 30 days per year, or sustain an overexposure incident involving hazardous substances. CFR requires an annual exam unless the attending physician feels longer intervals are appropriate. Under no circumstances should the frequency be less than every two years. A Physician's Written Opinion is required by OSHA standard. A sample can be found in Appendix F, F-2.

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
TUBERCULOSIS		YES	ANNUAL	NO
INFECTIOUS DISEASE		YES	ANNUAL	NO
HISTORY OF CHICKEN POX		YES	ANNUAL	NO
CURRENT PREGNANCY (SELF OR SPOUSE)		YES	ANNUAL	NO
INFERTILITY OR MISCARRIAGE (SELF OR SPOUSE)		YES	ANNUAL	NO
<b>WORK HISTORY OF:</b>				
EXP TO BENZENE		YES	ANNUAL	NO
EXP TO CHEMOTHERAPEUTIC/ANTINEOPLASTIC AGENTS		YES	ANNUAL	NO
EXP TO AEROSOLIZED ANTIBIOTICS/ANTIVIRALS		YES	ANNUAL	NO
EXP TO ANESTHETIC GASES		YES	ANNUAL	NO
EXP TO ETHYLENE OXIDE		YES	ANNUAL	NO
EXP TO IONIZING RADIATION		YES	ANNUAL	NO
EXP TO NON-IONIZING RADIATION (LASER, IR, MW, UV)		YES	ANNUAL	NO
EXP TO POTENTIALLY INFECTIOUS BODY FLUIDS		YES	ANNUAL	NO
EXP TO FORMALDEHYDE		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY:</b>				
<b>ADDITIONAL LAB TESTS:</b>				
TUBERCULOSIS SCREEN		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
<b>QUALIFICATIONS:</b>				
CURRENT IMMUNIZATIONS		YES	ANNUAL	NO
MEASLES/MUMPS/RUBELLA IMMUNE STATUS		YES	ANNUAL	NO
VARICELLA IMMUNE STATUS (FOR EMPLOYEES WITH DIRECT CONTACT WITH CHILDREN)		YES	ANNUAL	NO
IS HEPATITIS B VACCINE SERIES COMPLETE OR PRIOR INFECTION DOCUMENTED?		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVE FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

This program has an annual frequency based on the requirement for the tuberculosis screen to be conducted annually. REFERENCES: (OTHER); 1. Proposed OSHA Rule Governing Occupational Exposure to Bloodborne Pathogens, 54FR23042, May 30, 1989; 2. NIOSH, Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health-care and public-safety workers, 1989, DHHS (NIOSH) Pub. No. 89-107, US Government Printing Office, Washington, D.C.; 3. Lewy R. Organization and conduct of a hospital occupational health service, 1987, Occupational Medicine: State of the Art Reviews 2(3):617-649.; 4. NAVMEDCOMINST 6224.1 Tuberculosis Control Program; 5. CO NAVENVIRHLTHCEN ltr dtd 22 Sep 89 5602 Ser 36ndb/09345 regarding BUMED NOTICE 6230 (Immunization Requirements and Recommendations); 6. BUMED msg 010200Z June 90; NAVMEDCOMINST 6260.3. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

The immunization requirements promulgated by the various references can be summarized as follows:

A. Hepatitis B vaccine series is required for those medical and dental workers with exposure or potential exposure to blood or body fluids unless there is a contraindication. Those with exposure to blood and other infectious bodily fluids should be placed in Program 178.

B. Those individuals who have no history of varicella or serologic evidence of immunity should be counselled to report varicella exposure to the clinic since patient care restrictions may be appropriate 8 - 21 days after exposure. Those who work with children and have not had varicella should have varicella antibody measured.

C. Immunizations against tetanus and diphtheria should be current.

D. Immunity to measles, mumps and rubella is required. This requirement can be met by documentation of physician-diagnosed illness (except rubella), serologic evidence of immunity, or documented immunization (for measles, 2 doses 1 month apart after 1 year of age in individuals born in or after 1957 is required).

E. It is reasonable to obtain rubella antibody titer for females of child-bearing age as part of the pre-employment exam.

F. Specific requirements are contained in the instructions listed in the program description.

There is no specific exam required. The content of the exam and assignment to specific stressors are determined by review of responses to history questions and further interview of the worker as deemed appropriate. Health care workers are potentially exposed to a wide variety of chemical, physical and biologic agents. These exposures may change over time. Annual update of work exposures allows for adjustment of exposure programs as appropriate.



---

712     MOTOR VEHICLE OPERATOR (OTHER THAN DOT)

PROGRAM FREQUENCY:    QUADRENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
MEDICAL HISTORY:				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	QUAD-ENN	NO
MAJOR ILLNESS OR INJURY		YES	QUAD-ENN	NO
HOSPITALIZATION OR SURGERY		YES	QUAD-ENN	NO
CANCER		YES	QUAD-ENN	NO
BACK INJURY		YES	QUAD-ENN	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	QUAD-ENN	NO
HAVE YOU EVER SMOKED		YES	QUAD-ENN	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	QUAD-ENN	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	QUAD-ENN	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	QUAD-ENN	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	QUAD-ENN	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	QUAD-ENN	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	QUAD-ENN	NO
HEAD INJURY		YES	QUAD-ENN	NO
CHANGE OR LOSS OF VISION		YES	QUAD-ENN	NO
LOSS OR CHANGE IN HEARING		YES	QUAD-ENN	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	QUAD-ENN	NO
EPILEPSY (SEIZURE DISORDER)		YES	QUAD-ENN	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	QUAD-ENN	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	QUAD-ENN	NO
MENTAL/EMOTIONAL ILLNESS		YES	QUAD-ENN	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	QUAD-ENN	NO
PERSONALITY CHANGE		YES	QUAD-ENN	NO
COMMENTS ON MEDICAL HISTORY:		YES	QUAD-ENN	NO
LABORATORY-				
URINALYSIS:				
ROUTINE:				
URINALYSIS WITH MICROSCOPIC		YES	QUAD-ENN	NO
CARDIOLOGY-				
ELECTROCARDIOGRAM		YES	***	NO
AUDIOLOGY-				
AUDIOGRAM		YES	QUAD-ENN	NO
OPTOMETRY-				
VISION SCREEN (VISUAL ACUITY)		YES	QUAD-ENN	NO
VISUAL FIELDS		YES	QUAD-ENN	NO
COMMENTS ON LABORATORY RESULTS:		YES	QUAD-ENN	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	QUAD-ENN	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	QUAD-ENN	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	QUAD-ENN	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	QUAD-ENN	NO
CARDIOVASCULAR SYSTEM		YES	QUAD-ENN	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	QUAD-ENN	NO
EARS (TYMPANIC MEMBRANES)		YES	QUAD-ENN	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	QUAD-ENN	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	QUAD-ENN	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	QUAD-ENN	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	QUAD-ENN	NO
RECOMMENDATIONS:		YES	QUAD-ENN	NO

---

**PROGRAM DESCRIPTION:**

\*\*\*EKG over age 39. REFERENCES: (OTHER); Federal Personnel Manual, Chapter 930. PROGRAM REVIEWED 8/90.

**PROVIDER COMMENTS:**

Guidelines for Motor Vehicle Operators in this program are contained in Federal Personnel Manual, Chapter 930. An operator is defined as any employee who is regularly required to operate motor vehicles and is occupying a position officially classified as a motor vehicle operator. The term does not apply to heavy equipment operators such as grader, tractor, crane or forklift operator. According to Chapter 930, "At least once every 4 years each agency must provide for testing, in accordance with standards and procedures established by OPM, the physical fitness of all employees who operate motor vehicles." The standards are published in Appendix A of Chapter 930 and were used in development of Program 712.

Local and state requirements may have differing frequencies of examination. Local activities will need to be familiar with regulations affecting licensure of Motor Vehicle Operators in their area and meet those requirements in addition to those implied by the guidelines in FPM Chapter 930.

Guidelines for examinations for interstate driving and any driver covered by Federal Motor Carrier Safety regulations, 49 CFR 391.41-49, Subpart E, are contained in Program #706.

713 NAVAL INVESTIGATIVE SERVICE

PROGRAM FREQUENCY: AGE DEPENDENT:

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	BY AGE	NO
MAJOR ILLNESS OR INJURY		YES	BY AGE	NO
HOSPITALIZATION OR SURGERY		YES	BY AGE	NO
CANCER		YES	BY AGE	NO
BACK INJURY		YES	BY AGE	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	BY AGE	NO
HAVE YOU EVER SMOKED		YES	BY AGE	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	BY AGE	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	BY AGE	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	BY AGE	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	BY AGE	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	BY AGE	NO
LOSS OR CHANGE IN HEARING		YES	BY AGE	NO
COMMENTS ON MEDICAL HISTORY:		YES	BY AGE	NO
<b>LABORATORY-</b>				
<b>HEMATOLOGY:</b>				
COMPLETE BLOOD COUNT (HGB,HCT,WBC,MCV,MCH,MCHC)		YES	BY AGE	NO
<b>SERUM CHEMISTRY:</b>				
<b>BASIC PROFILE TO INCLUDE:</b>				
BUN, CREATININE, URIC ACID, CALCIUM,		YES	BY AGE	NO
TOT. BILI., ALK. PHOS, SGOT (AST)				
<b>LIVER PROFILE TO INCLUDE:</b>				
SGOT (AST), TOT. BILI., ALK. PHOS		YES	BY AGE	NO
CHOLESTEROL		YES	BY AGE	NO
TRIGLYCERIDES		YES	BY AGE	NO
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	BY AGE	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	***	YES
<b>AUDIOLOGY-</b>				
AUDIOGRAM		YES	BY AGE	NO
<b>RADIOLOGY-</b>				
CHEST X-RAY (PA)		YES	NO	YES

EXAM ELEMENT:	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	BY AGE	NO
COLOR VISION		YES	BY AGE	NO
DEPTH PERCEPTION		YES	BY AGE	NO
COMMENTS ON LABORATORY RESULTS:		YES	BY AGE	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	BY AGE	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	BY AGE	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	BY AGE	NO
<b>CERTIFICATIONS PERFORMED IAW:</b>				
NIS MANUAL FOR ADMINISTRATION		YES	BY AGE	NO
REVIEW OF FUNCTIONAL/ENVIRONMENTAL REQUIREMENTS OF SF 78		YES	BY AGE	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	BY AGE	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	BY AGE	NO
RECOMMENDATIONS:		YES	BY AGE	NO

---

**PROGRAM DESCRIPTION:**

This program has an age dependent frequency:

Age to 37 years	Tri-ennial
Age 38 to 40 years	Bi-ennial
Age 41 and over	Annual

\*\*\*The EKG is given every 5 years beginning at age 35. REFERENCES:  
(OTHER); 1. NIS Administrative Manual, NIS-1, Chapter 13, Section 1306; 2.  
Commander, Naval Investigative Service Command, ltr 31 May 89; 3. RE Bonner  
ltr, 6260, 29 Jun 89. PROGRAM REVIEWED 8/90.

**PROVIDER COMMENTS:**

Weight certification is required for NIS agents. Weight certification  
is accomplished by completing the weight range chart (addendum 2, NIS-1,  
Chapter 13) provided with the SF 78 at each examination and annually.

714 POLICE/GUARD SECURITY

PROGRAM FREQUENCY: ANNUAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	ANNUAL	NO
MAJOR ILLNESS OR INJURY		YES	ANNUAL	NO
HOSPITALIZATION OR SURGERY		YES	ANNUAL	NO
CANCER		YES	ANNUAL	NO
BACK INJURY		YES	ANNUAL	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	ANNUAL	NO
HAVE YOU EVER SMOKED		YES	ANNUAL	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	ANNUAL	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	ANNUAL	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	ANNUAL	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	ANNUAL	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	ANNUAL	NO
HEADACHE, DIZZINESS, LIGHT-HEADEDNESS, WEAKNESS		YES	ANNUAL	NO
CHANGE OR LOSS OF VISION		YES	ANNUAL	NO
LOSS OR CHANGE IN HEARING		YES	ANNUAL	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	ANNUAL	NO
SHORTNESS OF BREATH		YES	ANNUAL	NO
EPILEPSY (SEIZURE DISORDER)		YES	ANNUAL	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	ANNUAL	NO
THYROID DISEASE (HEAT OR COLD INTOLERANCE)		YES	ANNUAL	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	ANNUAL	NO
MENTAL/EMOTIONAL ILLNESS		YES	ANNUAL	NO
DEPRESSION, DIFF CONCENTRATING, EXCESSIVE ANXIETY		YES	ANNUAL	NO
PERSONALITY CHANGE		YES	ANNUAL	NO
<b>WORK HISTORY:</b>				
EXPOSURE TO POTENTIALLY INFECTIOUS BODY FLUIDS		YES	ANNUAL	NO
COMMENTS ON MEDICAL HISTORY:		YES	ANNUAL	NO
<b>LABORATORY-</b>				
<b>SERUM CHEMISTRY:</b>				
<b>BASIC PROFILE TO INCLUDE:</b>				
BUN, CREATININE, URIC ACID, CALCIUM,		YES	ANNUAL	NO
TOTAL BILIRUBIN, ALK. PHOS., SGOT (AST)				
CHOLESTEROL		YES	PENTA-E	NO
<b>URINALYSIS:</b>				
<b>ROUTINE:</b>				
URINALYSIS WITH MICROSCOPIC		YES	ANNUAL	NO
<b>CARDIOLOGY-</b>				
ELECTROCARDIOGRAM		YES	***	NO
<b>AUDIOLOGY-</b>				
AUDIOGRAM		YES	ANNUAL	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>OPTOMETRY-</b>				
VISION SCREEN (VISUAL ACUITY)		YES	ANNUAL	NO
COLOR VISION		YES	ANNUAL	NO
COMMENTS ON LABORATORY RESULTS:		YES	ANNUAL	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	ANNUAL	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CENTRAL NERVOUS SYSTEM		YES	ANNUAL	NO
PERIPHERAL NERVOUS SYSTEM (STRENGTH, SENSATION, DTR)		YES	ANNUAL	NO
BACK & MUSCULOSKELETAL SYSTEM		YES	ANNUAL	NO
CARDIOVASCULAR SYSTEM		YES	ANNUAL	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	ANNUAL	NO
RESPIRATORY SYSTEM		YES	ANNUAL	NO
EARS (TYMPANIC MEMBRANES)		YES	ANNUAL	NO
SKIN-WITH REGARD TO MALIGNANT & PRE-MALIGNANT COND		YES	ANNUAL	NO
THYROID		YES	ANNUAL	NO
METABOLIC DISTURBANCE (FEVER, TACHYCARDIA)		YES	ANNUAL	NO
OBESITY		YES	ANNUAL	NO
OVERALL PHYSICAL FITNESS		YES	ANNUAL	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	ANNUAL	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	ANNUAL	NO
<b>QUALIFICATIONS:</b>				
IS HEPATITIS B SERIES COMPLETE OR PRIOR INFECTION DOCUMENTED?		YES	ANNUAL	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	ANNUAL	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	ANNUAL	NO
RECOMMENDATIONS:		YES	ANNUAL	NO

#### PROGRAM DESCRIPTION:

\*\*\* The EKG is given every 5 years beginning at age 35. REFERENCES: (OTHER); 1. 54 CFR 23042, May 30, 1989; 2. NIOSH Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health-care and public-safety workers: 1989, DHHS (NIOSH) Publication Number 89-107, U.S. Government Printing Office, Washington, D.C. PROGRAM REVISED 8/90.

#### PROVIDER COMMENTS:

Current NIOSH Guidelines and a likely OSHA Regulation consider public safety workers, including both policemen and firefighters, at risk for exposure to bloodborne pathogens. This risk is not universal since duties of public safety workers vary greatly between departments and locations. The purpose of the requirement for assessment of hepatitis B immune status is to determine for the individual the extent of potential exposure. Those who are felt to be at significant risk may be placed in Program 178, Blood and/or Body Fluids.

The usual medical examination performed at the time of employment may include:

1. A medical history
2. An occupational health history (OPNAV 5100/15, Medical Surveillance Questionnaire)
3. A physical examination which is an organ inventory and appraisal of function.
4. Such laboratory, radiographic and ancillary tests procedures as indicated by history or other evaluation findings and exposures inherent in the position.
5. A recommendation, including individualized work restrictions and suggested accommodations, which is forwarded to the hiring agency, is free of any diagnostic information and is used exclusively as an aid in placement.

---

PROGRAM DESCRIPTION:

"The basis on which agencies may establish specific medical standards or physical requirements is discussed in FPM Chapter 339. In general, there must be a direct relationship between the medical standard or physical requirement and the actual duties of the position being filled. If there is evidence that an applicant can safely perform the essential duties of a position notwithstanding a potentially disqualifying condition, the standard or requirement must be waived. Agencies must provide reasonable accommodation to qualified handicapped individuals in accordance with Equal Employment Opportunity Commission regulations." Source: X-118 Qualification Standards, Other Qualification Requirements or Provisions, Medical/Physical.

The following guidance was taken from the President's Committee on Employment of People with Disabilities, Fact Sheet On: "Medical Examinations: Are they Beneficial and Legal?"

People with disabilities are people who can work, in most instances. Pre-existing impairments for which accommodations can be made should be considered as simply limitations and not automatic evidence of inability to perform the job. The professional conducting the examination must be provided with a description of the job being offered so that he or she has adequate and appropriate knowledge of the work demands.

An examination at the entry into new employment is highly advantageous to the applicant. It provides an appraisal of current health and the opportunity to provide guidance for a safe and healthful work experience. If a disabling condition is present, it can be accommodated to minimize further functional limitations. Meeting the requirements of the American with Disabilities Act (ADA) is not difficult, for all persons are treated equally and examined equally.

Sources of Additional Information:

1. Felton, J.S., "Placement of the Handicapped" in McCunney, Robert J., Chapter 24, Handbook of Occupational Medicine. Boston, Little, Brown, 1988.
2. Felton, J.S., Occupational Medical Management, A Guide to the Organization and Operation of In-Plant Occupational Health Services. Boston, Little, Brown, 1989.
3. Guides to the Evaluation of Permanent Impairment, 3rd edition, American Medical Association, Chicago, 1988.
4. The President's Committee on Employment of People with Disabilities  
1111 20th Street, NW, Suite 636  
Washington, D.C. 20036-3470  
(202) 653-5050
5. The Americans with Disabilities Act: A Practical and Legal Guide to Impact, Enforcement and Compliance, Bureau of National Affairs Special Report Copyright 1990.
6. OCPMINST 12339.1, DON Medical Determinations Related to Employability (CPI 339) 14 JAN 1988. (SN 0693LD0536085)



716 RESPIRATOR USER CERTIFICATION EXAM

PROGRAM FREQUENCY: AGE DEPENDENT

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
<b>PERSONAL HISTORY OF:</b>				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	BY AGE	NO
MAJOR ILLNESS OR INJURY		YES	BY AGE	NO
HOSPITALIZATION OR SURGERY		YES	BY AGE	NO
CANCER		YES	BY AGE	NO
BACK INJURY		YES	BY AGE	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	BY AGE	NO
HAVE YOU EVER SMOKED		YES	BY AGE	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	BY AGE	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	BY AGE	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	BY AGE	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	BY AGE	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	BY AGE	NO
ALLERGIES, ASTHMA, HAY FEVER, ECZEMA (ATOPY)		YES	BY AGE	NO
SKIN DISEASE		YES	BY AGE	NO
LUNG OR RESP DISEASE (COPD, BRONCHITIS, PNEUMONITIS)		YES	BY AGE	NO
USE OF EYE GLASSES		YES	BY AGE	NO
CONTACT LENS USE		YES	BY AGE	NO
CHEST PAIN, ANGINA, HEART ATTACK, PALPITATIONS		YES	BY AGE	NO
SHORTNESS OF BREATH		YES	BY AGE	NO
EPILEPSY (SEIZURE DISORDER)		YES	BY AGE	NO
NEUR DISORDER, GAIT CHANGE, PARESTHESIA, COORD LOSS		YES	BY AGE	NO
DIABETES OR OTHER ENDOCRINE GLAND DISORDER		YES	BY AGE	NO
MENTAL/EMOTIONAL ILLNESS		YES	BY AGE	NO
CLAUSTROPHOBIA		YES	BY AGE	NO
<b>WORK HISTORY OF:</b>				
PRIOR RESPIRATOR USE		YES	BY AGE	NO
COMMENTS ON MEDICAL HISTORY:		YES	BY AGE	NO
<b>PHYSICAL EXAMINATION:</b>				
VITAL SIGNS		YES	BY AGE	NO
<b>SPECIAL ATTENTION IN EXAMINATION TO:</b>				
CARDIOVASCULAR SYSTEM		YES	BY AGE	NO
EYES (CONJUNCTIVA, SCLERA, CORNEA, LENS, RETINA)		YES	BY AGE	NO
RESPIRATORY SYSTEM		YES	BY AGE	NO
EARS (TYMPANIC MEMBRANES)		YES	BY AGE	NO
SKIN (RASH, EROSION, ULCER, PIGMENT, ECZEMA, ETC)		YES	BY AGE	NO
OTHER APPROPRIATE EXAMINATION (SPECIFY)		YES	BY AGE	NO
COMMENTS ON PHYSICAL EXAMINATION:		YES	BY AGE	NO

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	BY AGE	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	BY AGE	NO
RECOMMENDATIONS:		YES	BY AGE	NO

---

**PROGRAM DESCRIPTION:**

This program has an age dependent frequency:

AGE OF EMPLOYEE	<u>15 TO 34</u>	<u>35 TO 44</u>	<u>45+</u>
FREQUENCY OF EXAM	<u>Every 5 years</u>	<u>Every 2 years</u>	<u>Annual</u>

REFERENCES: (OTHER); 1. ANSI Standard Z88.2-1980, Practices for Respiratory Protection; 2. NIOSH Respirator Decision Logic, U.S. Department of Health and Human Services, DHHS (NIOSH) Pub. No. 87-108; 3. OPNAVINST 5100.23B, Chapter 15; 4. OPNAVINST 5100.19B, Chapter B6. PROGRAM REVISED 8/90.

**PROVIDER COMMENTS:**

Spirometry and chest x-rays are not required to be routinely performed for this program. Spirometry and routine chest x-rays are not recommended solely as data for determining if a respirator should be worn but may be medically indicated in some fitness determinations when additional information is needed to determine fitness. (NIOSH Pub. No. 87-108). Workers who wear respirators may be receiving spirometry and chest x-rays as part of the surveillance program requirements for specific hazards.

---

717     SUBMARINE DUTY

PROGRAM FREQUENCY:   PREPLACEMENT AND ALL SUBSEQUENT COMPLETE EXAMS  
                             FOR OTHER REASONS

---

PROGRAM DESCRIPTION:

This program is designated solely to provide guidance on scheduling frequency. The program requires an exam for pre-placement. Thereafter, on all subsequent and periodic physical examinations for any purpose, submarine duty should be included as an additional purpose and a qualification determination made. Tests and forms required are promulgated in Manual of the Medical Department, NAVMED P-117, Chapter 15, Article 15-69, Change 104. For civilian personnel embarked on submarines consult SECNAVINST 6420.1D, 7 April 1986. PROGRAM REVISED 4/91.

---

**702 WASTEWATER/SEWAGE WORKER**

---

PROGRAM FREQUENCY: PENTA-ENNIAL

EXAM ELEMENT	ELEMENT GIVEN FOR:	BASE LINE	PERI ODIC	TERM EXAM
<b>MEDICAL HISTORY:</b>				
PERSONAL HISTORY OF:				
IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)		YES	PENTA-E	NO
MAJOR ILLNESS OR INJURY		YES	PENTA-E	NO
HOSPITALIZATION OR SURGERY		YES	PENTA-E	NO
CANCER		YES	PENTA-E	NO
BACK INJURY		YES	PENTA-E	NO
DO YOU DRINK 6 OR MORE DRINKS PER WEEK (BEER, WINE, LIQUOR)		YES	PENTA-E	NO
HAVE YOU EVER SMOKED		YES	PENTA-E	NO
DO YOU CURRENTLY SMOKE (PACKS/DAY)		YES	PENTA-E	NO
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE		YES	PENTA-E	NO
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)		YES	PENTA-E	NO
ALLERGIES (INCLUDE MEDICATIONS)		YES	PENTA-E	NO
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)		YES	PENTA-E	NO
SKIN DISEASE		YES	PENTA-E	NO
COMMENTS ON MEDICAL HISTORY:		YES	PENTA-E	NO
<b>QUALIFICATIONS:</b>				
CURRENT IMMUNIZATIONS		YES	PENTA-E	NO
<b>CERTIFICATIONS PERFORMED IAW:</b>				
NAVMED P-5010		YES	PENTA-E	NO
IS SURVEILLANCE CONSISTENT WITH EXPOSURES LISTED ON OPNAV 5100/15?		YES	PENTA-E	NO
ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE?		YES	PENTA-E	NO
RECOMMENDATIONS:		YES	PENTA-E	NO

---

**PROGRAM DESCRIPTION:**

The immunization status of wastewater/sewage worker should be reviewed every five years. Tetanus-diphtheria vaccine should be updated according to current recommendations. Polio vaccine is administered to individuals not fully immunized. Specific guidance is contained in these references: (OTHER); 1. NAVMED P-5010, Manual of Naval Preventive Medicine; 2. NAVMEDCOMINST 6230.3, Immunizations and Chemoprophylaxis. PROGRAM REVISED 8/90.

APPENDIX A  
Listing of Tests

Test	Test Name
1000	MEDICAL HISTORY:
1100	Personal History of:
1105	Is Your Work Exposure History Current (OPNAV 5100/15)
1110	Major Illness or Injury
1120	Hospitalization or Surgery
1130	Cancer
1140	Back Injury
1150	Do You Drink 6 or More Drinks per week? (beer, wine, liquor)
1155	Have You Ever Smoked?
1160	Do You Currently Smoke? (packs/day)
1165	Do You Use Smokeless Tobacco?
1170	Heart Disease, High Blood Pressure or Stroke
1180	Current Medication Use (Prescription or OTC)
1182	Allergies (Include Medications)
1190	Use of Seat Belts (Always, Mostly, Some, None)
1200	Blood Diseases (Anemia)
1210	Blood Transfusions
1220	Allergies, Asthma, Hay Fever, Eczema (Atopy)
1230	Skin Disease
1235	Precancerous Lesions
1240	Heat Injury (Cramps, Exhaustion, Stroke)
1250	Peripheral Vascular Disease
1260	Hepatitis or Jaundice
1270	Radiation Therapy or Radiopharmaceutical Treatment
1280	Lung or Resp Disease (COPD, Bronchitis, Pneumonitis)
1290	Tuberculosis
1300	Infectious Disease
1302	History of Chicken Pox
1305	Syphilis or gonorrhea
1310	Treatment with Steroids or Cancer (Cytotoxic) Drugs
1320	Use of Nitrate Medication (Nitroglycerine)
1330	Use of Anticholinergic Drugs (Donnatal)
1340	Use of Barbiturates
1400	Headache, Dizziness, Light-headedness, Weakness
1410	Nausea or Vomiting
1415	Nervous Stomach or Ulcer
1420	Exposure (Acclimatization) to Heat
1421	Cold Injury (Frostbite, Chill, Trench Foot, Hypothermia)
1430	Weight Loss

Test	Test Name
1440	Head Injury
1450	Tremors
1455	Use of Eye Glasses
1460	Change or Loss of Vision
1461	Contact Lens Use
1462	Lens Surgery
1463	Photosensitizing Medications
1464	Unusual Sensitivity to Sunlight
1470	Cataracts
1480	Eye Irritation
1490	Eye Injury
1500	Glaucoma
1510	Perforation of Nasal Septum
1520	Tooth or Gum Disease
1530	Ringings in the Ear (Tinnitus)
1535	Ruptured Ear Drum
1540	Loss or Change in Hearing
1550	Chest Pain, Angina, Heart Attack, Palpitations
1560	Coughing Up Blood (Hemoptysis)
1570	Shortness of Breath
1580	Cough (Dry or Productive)
1590	Pneumonia
1600	Chronic Abdominal Pain, Vomiting, Other GI Symptoms
1605	Change in Frequency or Appearance of Bowel Movements
1610	Liver Disease
1620	Kidney Disease
1630	Problems with Urination/Blood in Urine
1640	Current Pregnancy (Self or Spouse)
1650	Impotence or Sexual Dysfunction
1660	Infertility or Miscarriage (Self or Spouse)
1670	Epilepsy (Seizure Disorder)
1680	Neurologic Disorder, Gait Change, Paresthesia, Coordination Loss
1690	Migraine Headache
1700	Thyroid Disease (Heat or Cold Intolerance)
1710	Diabetes or Other Endocrine Gland Disorder
1720	Mental/Emotional Illness
1730	Depression, Difficulty Concentrating, Excessive Anxiety
1732	Treatment for Drug or Alcohol Use
1740	Personality Change
1745	Claustrophobia
1750	Vibration White Finger Disease
1755	Bone Problems (Broken Bones)

Test	Test Name
1760	Muscle or Joint Problems
1765	Permanent Defect from Illness, Disease or Injury
2000	Work History Of:
2005	Prior Respirator Use
2010	Exposure to Dusts (Coal, Blast. Grit, Sand, Nuisance)
2020	Exposure to Asbestos
2021	10 or More Years Since First Exposure to Asbestos
2030	Exposure to Lead
2040	Exposure to Benzene
2050	Exposure to Chemotherapeutic/Antineoplastic Agents
2055	Exposure to Aerosolized Antibiotics/Antivirals
2060	Exposure to Anesthetic Gases
2070	Exposure to Ethylene Oxide
2080	Exposure to Chromium or Chromic Acid
2090	Exposure to Silica or Sand
2100	Exposure to Hydrogen Fluoride or Inorganic Fluorides
2104	10 or More Years Since First Exposure to Arsenic
2105	10 or More Years Since First Exposure to Vinyl Chloride
2110	Exposure to Ionizing Radiation
2120	Exposure to Non-Ionizing Radiation (Laser, IR, MW, UV)
2130	Exposure to Vibration (Segmental or Whole Body)
2135	Exposure to Excessive Noise
2140	Eye Injury
2150	Exposure to Skin Irritants
2160	Exposure to Respiratory Irritants
2170	Exposure to Carcinogens
2180	Exposure to Isocyanate Foam or Paint
2190	Sensitization to Isocyanates (TDI, MDI)
2200	Exposure to Solvents (MEK, PERC, TCE, Toluene..)
2205	Exposure to Potentially Infectious Body Fluids
2210	Exposure to Formaldehyde
2215	Exposure to Cadmium
2500	Family History Of:
2510	Blood Diseases (Anemia)
2520	Genetic Disease (Include Children)
2530	Cancers (Leukemia, Tumors)
2540	Heart Disease, High Blood Pressure or Stroke
2545	Cataracts
2990	COMMENTS ON MEDICAL HISTORY
3000	LABORATORY
3100	Hematology:
3110	Complete Blood Count (HGB, HCT, WBC, MCV, MCH, MCHC)

Test	Test Name
3120	Differential White Blood Cell Count
3125	RBC Morphology
3130	Reticulocyte count
3140	Platelet Estimate
3141	Platelet Count
3500	Serum Chemistry:
3510	Random Serum/Plasma Glucose
3520	Basic Profile to Include:
3521	BUN, Creatinine, Uric Acid, Calcium,
3522	Total Bilirubin, Alk. Phos., SGOT (AST)
3530	Liver Profile to Include:
3531	SGOT (AST), Total Bilirubin, Alk. Phos.
3545	BUN and Creatinine
3547	Cholesterol
3550	SGOT (AST)
3560	Phosphate
3570	Globulin
3580	Acid Phosphatase
3590	CPK
3600	Bilirubin (Direct)
3610	Triglycerides
3620	GGT
3630	Blood Lead and Zinc Protoporphyrin (ZPP)
3640	RBC Cholinesterase
3641	Plasma (or Serum) Cholinesterase
3650	Serum FSH, LH and Estrogen
3660	Blood Methemoglobin (If cyanotic)
3670	Blood Acetone
3675	Serum Total Estrogen (female)
3680	Serum Follicle Stimulating Hormone (FSH)
3685	Serum Luteinizing Hormone (LH)
4000	Urinalysis:
4100	Routine:
4110	Urinalysis with Microscopic
4120	Urinalysis without Microscopic
4200	Urine Chemistry:
4210	Urine Total Phenol
4220	Urine Hydroquinone (If Urine is Dark Brown)
4230	Urine Mercury
4250	Urine Fluoride - Post Shift
4260	Urine 24 - Hour Protein (Quantitative)
4270	Urine P-Nitrophenol (If Darkening Observed)
4280	Blank



Test	Test Name
4500	Cytology:
4510	Sputum Cytology
4520	Urine Cytology
4800	Additional Lab Tests:
4810	Stool Hemoccult (Over age 45)
4820	Sperm Count (Male)
4830	RPR
4840	Tuberculosis Screen
4850	Pregnancy Testing or Laboratory Testing of
4851	Fertility if Requested by Employee and Deemed
4852	Appropriate by the Physician
4855	Serum to be frozen
5000	Cardiology:
5010	Electrocardiogram
5020	Exercise Cardiac Stress Test
5200	Audiology:
5210	Audiogram
5220	Audiogram - 15 hr/40 hr Noise Free
5230	Tympanogram Status
5400	Radiology:
5410	Chest x-ray (PA)
5420	Chest x-ray (Asbestos)
5425	Utilizing Form - NAVMED 6260/7
5600	Spirometry:
5610	Spirometry (FVC, FEV1, FEV1/FVC)
5800	Optometry:
5805	Current Refraction Prescription - When Applicable
5807	Date of Most Recent Examination
5810	Vision Screen (Visual Acuity)
5811	Color Vision
5820	Depth Perception
5830	Visual Fields
5835	Contrast Sensitivity
5836	External Ocular and Fundus Examination
5840	Ophthalmologic Exam
5850	Slit Lamp Exam
5860	Tonometry
5900	Dental:
5910	Dental Exam
5990	COMMENTS ON LABORATORY RESULTS:

Test	Test Name
6000	Physical Examination:
6005	Required When Positive History Questions are Obtained:
6010	Vital Signs
6100	Special Attention in Examination to:
6110	Central Nervous System
6120	Peripheral Nervous System (Strength, Sensation, DTR)
6130	Back and Musculoskeletal System
6135	Extremities
6140	Cardiovascular System
6150	Peripheral Vascular System (Raynaud's)
6155	Varicose Veins of Lower Extremities
6160	Cyanosis
6165	Clubbing
6170	Eyes (Conjunctiva, Sclera, Cornea, Lens, Retina)
6175	Eyes (Conjunctiva, Sclera)
6180	Gums (e.g., Lead Lines?)
6190	Teeth (Acid Erosion)
6200	Abdomen
6205	Breast Examination (Female)
6210	Genitourinary Tract
6215	GU (Including Testicle Size)
6220	Testes (Male)
6230	Kidney
6240	Liver
6245	Spleen
6250	Mucous Membranes
6260	Nasal Mucosa (Septal Perforation)
6270	Respiratory System
6280	Ears (Tympanic Membranes)
6290	Skin (Rash, Erosion, Ulcer, Pigment, Eczema, Etc.)
6300	Skin, With Regard to Malignant and Pre-malignant Conditions
6310	Thyroid
6320	Metabolic Disturbance (Fever, Tachycardia)
6340	Immunocompetence (Lymphatic System)
6350	Obesity
6360	Overall Physical Fitness
6365	Rectal Examination
6366	Hemorrhoids
6370	Body Habitus
6900	Other Appropriate Examination (Specify):
6990	COMMENTS ON PHYSICAL EXAMINATION:

Test	Test Name
7100	Qualifications:
7110	Respiratory Protection
7120	Sight Conservation
7130	Current Immunizations
7140	Measles/Mumps/Rubella Immune Status
7145	Measles Immune Status
7147	Varicella Immune Status (for employees with direct contact with children)
7150	Is Hepatitis B Vaccine Series Complete or Prior Infection Documented?
7500	Certifications Performed IAW:
7510	NAVMED P117, Chapter 15
7520	NAVMED P-5010
7530	NAVSEA OP-2239
7540	FPM TS 146
7560	NAVMED P-5055
7570	NAVFAC P-306
7575	FPM 930
7576	ANSI A136.1 OF 1986
7577	OPNAVINST 5100.23B CHAPTER 22
7580	NIS Manual for Administration
7700	Update SF 93 as Applicable
7710	Review Functional/Environmental Requirements of SF 78
7720	Complete NAVMED 6260/5, Rev (5/90), Periodic Health Evaluation
7730	Review DD 2493-1, Initial Exam or DD 2493-2, Periodic Exam
8000	Hearing Conservation:
8100	Has Baseline Been Reestablished Due to PTS?
8110	High Frequency Average Exceeds 45 dB Bilaterally?
8120	Ear Plugs Fitted and Issued
8130	Refer to Audiologist or Physician
9000	Special Notations:
9010	Substance(s) Known Human Carcinogen
9020	Substance(s) Suspected Human Carcinogen
9030	Substance(s) Known Mutagenic or Fetotoxic Effects
9040	Substance(s) Suspected Human Mutagenic/Fetotoxic Effects
9050	Counselling Regarding Combined Effects of Smoking and Asbestos Exposure
9060	Assess Knowledge of Universal Blood/Body Fluid Precautions
9065	Physician's Written Opinion Required
9067	Written Notification of Permanent Threshold Shift Required
9970	Is Surveillance Consistent with Exposures Listed on OPNAV 5100/15?
9975	ASSESSMENT:
9980	Adverse Health Effects Of Occupational Exposure?
9990	RECOMMENDATIONS:

## APPENDIX B

The following list of stressors was reviewed and not included in the Medical Matrix. Any questions or concerns should be addressed to Committee members or Occupational Medicine staff at NAVENVIRHLTHCEN. The list will be reviewed periodically and updated.

Stressor	Date reviewed
Acetone	Dec 1989
Asphalt Fumes	Dec 1989
Benzo(a) pyrene	Dec 1989
Crysene	Dec 1989
Fungicides	Nov 1990
N-heptane	Dec 1989
N-Hexane	Dec 1989
Petroleum distillates, (kerosene, Stoddard	Dec 1989
Slovent, Naphtha, Mineral Spirits)	Dec 1989
Silver	Dec 1989

On further review for chronic effects and evaluation of usage, these programs were removed from the Medical Matrix. Solvents were included in Program #603, Mixed Solvents, and program #157 was combined with an existing program. The Program Numbers will be retained for historical purposes.

Program Number	Stressor	Date Reviewed
107	Ammonia	Aug 1990
119	Benzoyl Peroxide	Aug 1990
120	Benzyl Chloride	Aug 1990
123	2-Butanone (Methyl Ethyl Ketone)	Aug 1990
129	Chlorine	Aug 1990
136	Cyclohexanone	Aug 1990
144	Ethyl Butyl Ketone	Aug 1990
147	Ethylene Glycol	Aug 1990
153	Glycol Ethers (other than ethoxy and methoxy ethanol)	Aug 1990
212	N-Heptane	Aug 1990
154	Hexone	Aug 1990
157	Hydrogen Fluoride (Combined with #150)	Aug 1990

# APPENDIX B (con't)

Program Number	Stressor	Date Reviewed
160	Isopropyl Alcohol	Aug 1990
164	Methyl (N-Amyl) Ketone	Aug 1990
165	Methyl Alcohol	Aug 1990
169	Morpholine	Aug 1990
101	Nuisance Dusts	Aug 1990
181	2-Pentanone (Methyl Propyl Ketone)	Aug 1990
182	Phenol	Aug 1990
183	Phosgene	Aug 1990
504	Radiation - Infrared, UV and Visible	Aug 1990
509	Sight Conservation (Bi-ennial frequency reserved for computer scheduling)	Aug 1990
188	Sodium Hydroxide	Aug 1990
193	TMPP (Trimethylolpropane Phosphate)	Aug 1990
199	Triorthocresylphosphate (TOCP)	Aug 1990
202	Vinyl Acetate	Aug 1990
206	Zinc Oxide	Aug 1990

## APPENDIX C

### General References

- (1) Zenz, Carl, Occupational Medicine Principles and Practical Applications, Second Edition, Year Book Medical Publishers, Inc. Chicago, 1988.
- (2) Rom, William N. M.D., M.P.H., Environmental and Occupational Medicine, First Edition, Little Brown and Company, Boston, 1983.
- (3) Proctor, Nick H., PhD. James P. Hughes, M.D., F.A.C.P., and Michael L. Fischman, M.D., M.P.H., Chemical Hazards of the Workplace, Second Edition, JB Lippincott Company, Philadelphia, 1988.
- (4) Hamilton and Hardy's Industrial Toxicology, Fourth Edition, John Wright PSG Inc., Boston, 1983.

APPENDIX D  
IMPROVEMENT REQUEST  
MEDICAL MATRIX

DATE \_\_\_\_\_

Originator: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: (AV) \_\_\_\_\_ (COM) \_\_\_\_\_

\_\_\_\_\_ This is a request for a CHANGE in a current program.

Name and number of program: \_\_\_\_\_

Recommendation: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ This is a request for ADDITION of a new program.

Recommendation: Include references and description of program currently in use.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mail to:  
Commanding Officer  
ATTN: Medical Matrix Committee  
Navy Environmental Health Center  
2510 Walmer Avenue  
Norfolk, VA 23513-2617

## HEALTH RECORD

## CHRONOLOGICAL RECORD OF MEDICAL CARE

Date | Symptoms, Diagnosis, Treatment, Treating Organization (SIGN EACH ENTRY)

## MEDICAL SURVEILLANCE/CERTIFICATION EXAM FOR THE FOLLOWING PROGRAMS

CODE PROGRAM	EXAM TYPE	PROG FREQ
178 BLOOD AND/OR BODY FLUIDS	BASELINE	

EMPLOYEE OCCUP.: HOSPITAL CORPSMAN  
AGENCY: NEPMU-2 CODE:

CURRENT PRIMARY WORK LOCATION (BLDG/ROOM): X-336

WORK SUPERVISOR: DUTY TEL #:

## MEDICAL HISTORY:

## PERSONAL HISTORY OF:

IS YOUR WORK EXPOSURE HISTORY CURRENT (OPNAV 5100/15)	Y	N	?
MAJOR ILLNESS OR INJURY	Y	N	?
HOSPITALIZATION OR SURGERY	Y	N	?
CANCER	Y	N	?
BACK INJURY	Y	N	?
DO YOU DRINK 6 OR MORE DRINKS PER WEEK? (BEER, WINE, LIQUOR)	Y	N	?
HAVE YOU EVER SMOKED?	Y	N	?
DO YOU CURRENTLY SMOKE? (PACKS /DAY)	Y	N	?
HEART DISEASE, HIGH BLOOD PRESSURE, OR STROKE	Y	N	?
CURRENT MEDICATION USE (PRESCRIPTION OR OTC)	Y	N	?
ALLERGIES (INCLUDE MEDICATIONS)	Y	N	?
USE OF SEAT BELTS (ALWAYS, MOSTLY, SOME, NONE)	Y	N	?

## WORK HISTORY OF:

EXPOSURE TO POTENTIALLY INFECTIOUS BODY FLUIDS	Y	N	?
--	---	---	---

## COMMENTS ON MEDICAL HISTORY:

## PHYSICAL EXAMINATION:

VITAL SIGNS HT(in): WT(lbs): BP: P: RESP:

## RECORDS

MAINTAINED AT:

TESTING FACILITY

PATIENT'S NAME (LAST, FIRST, MIDDLE INITIAL)  
SMITH, JOHN MSEX  
M

RELATIONSHIP TO SPONSOR

STATUS

RANK/GRADE  
HM2

SPONSOR'S NAME

ORGANIZATION  
NEPMU-2DEPART./SERVICE SSN OR IDENTIFICATION NO.  
111111111DATE OF BIRTH  
02/02/60

CHRONOLOGICAL RECORD OF MEDICAL CARE

SF-600 FACSIMILE



HEALTH RECORD

CHRONOLOGICAL RECORD OF MEDICAL CARE

Date | Symptoms, Diagnosis, Treatment, Treating Organization (SIGN EACH ENTRY)

## PHYSICAL EXAMINATION:

OTHER APPROPRIATE EXAMINATION (SPECIFY)

## COMMENTS ON PHYSICAL EXAMINATION:

## QUALIFICATIONS:

IS HEPATITIS B VACCINE SERIES COMPLETE OR PRIOR EXPOSURE DOCUMENTED?

## SPECIAL NOTATIONS:

ASSESS KNOWLEDGE OF UNIVERSAL BLOOD/BODY FLUID PRECAUTIONS

PHYSICIAN'S WRITTEN OPINION REQUIRED

IS SURVEILLANCE CONSIST. WITH EXPOSURES LISTED ON OPNAV 5100/15 Y N

## ASSESSMENT:

ADVERSE HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE? Y N ?

Occupational Physical Examination (mark "X" whether Qualified or Not Qualified for further exposure, Pending for awaiting results or Incomplete for another visit required)

## CODE PROGRAM

PEND INCOM QUAL NOT QUAL

178 BLOOD AND/OR BODY FLUIDS

RECOMMENDATIONS: (Include reasons for Not Qual. or any restrictions)

PROVIDER SIGNATURE AND STAMP

RECORDS  
MAINTAINED AT:

TESTING FACILITY

PATIENT'S NAME (LAST, FIRST, MIDDLE INITIAL)  
SMITH, JOHN MSEX  
M

RELATIONSHIP TO SPONSOR

STATUS

RANK/GRADE  
HM2

SPONSOR'S NAME

ORGANIZATION  
NEPMU-2

DEPART./SERVICE

SSN OR IDENTIFICATION NO.  
111111111DATE OF BIRTH  
02/02/60

CHRONOLOGICAL RECORD OF MEDICAL CARE

SF-600 FACSIMILE

## APPENDIX F

### PHYSICIAN'S WRITTEN OPINION

On the following pages are samples of physician's written opinions required by OSHA for certain programs. The physician's written opinion contains the results of the medical examination and the following:

1. The physician's opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of health impairment from continued exposure to the particular hazard.
2. Any recommendations for limitations on the employee or for use of personal protective equipment.
3. A statement that the employee has been informed of the results of the medical evaluation and about any medical conditions resulting from exposure to the particular hazard.

The physician's written opinion is given to the employee's command and therefore must not reveal specific findings or diagnoses unrelated to occupational exposure to the hazards.

Sample Physician's Written Opinion for:	page
Asbestos Medical Surveillance Program	8-F-1
Hazardous Waste Workers and Emergency Responders	8-F-2
Occupational Exposure to Blood and/or Body Fluids	8-F-3
Occupational Exposure to Ethylene Oxide	8-F-4
Occupational Exposure to Formaldehyde	8-F-5
Occupational Exposure to Lead	8-F-6
Notification of Permanent Threshold Shift	8-F-7

\_\_\_\_\_  
DATE

ASBESTOS MEDICAL SURVEILLANCE PROGRAM

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code: \_\_\_\_\_

1. The above noted individual was examined according to current guidelines regarding exposure to asbestos. On the basis of this examination the following comments are submitted:
2. A medical condition WAS/WAS NOT detected that would place the employee at an increased risk of material health impairment from exposure to asbestos, tremolite, anthophyllite, or actinolite. Comments (if applicable):
3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable):
4. The employee has been informed of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.
5. The employee has been counselled regarding the results of this medical evaluation and of any medical conditions resulting from asbestos, tremolite, anthophyllite or actinolite exposure that require further explanation or treatment, as noted by his/her signature below.

\_\_\_\_\_  
(employee's signature)

\_\_\_\_\_  
(examiner's signature and stamp)

\_\_\_\_\_  
(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

\_\_\_\_\_  
DATE

HAZARDOUS WASTE WORKERS AND EMERGENCY RESPONDERS

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code: \_\_\_\_\_

1. The above noted individual was examined according to 29 CFR 1910.120 regarding hazardous waste operations or emergency response. On the basis of this examination the following comments are submitted.

2. A medical condition WAS/WAS NOT detected that would place the employee at an increased risk of material impairment of health from hazardous waste operations or emergency response. Comments (if applicable):

3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable):

4. The employee has been counselled regarding the results of this medical evaluation and of any medical conditions that require further evaluation or treatment.

\_\_\_\_\_  
(examiner's signature and stamp)

\_\_\_\_\_  
(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

\_\_\_\_\_  
DATE

OCCUPATIONAL EXPOSURE TO BLOOD AND/OR BODY FLUIDS

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code: \_\_\_\_\_

1. The above noted individual was examined according to current guidelines regarding exposure to blood and/or body fluids. On the basis of this examination the following comments are submitted:
2. There ARE/ARE NOT recommended limitations upon the employee's ability to receive hepatitis B vaccination. Limitations, if recommended, are based on the following findings:
3. The employee has been informed of the results of this medical evaluation and about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

\_\_\_\_\_  
(examiner's signature and stamp)

\_\_\_\_\_  
(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

\_\_\_\_\_  
DATE

OCCUPATIONAL EXPOSURE TO ETHYLENE OXIDE

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code: \_\_\_\_\_

1. The above noted individual was examined according to 29 CFR 1910.1047 regarding occupational exposure to ethylene oxide. On the basis of this examination the following comments are submitted:

2. A medical condition WAS/WAS NOT detected that would place the employee at an increased risk of material impairment of health from exposure to ethylene oxide. Comments (if applicable):

3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable):

4. The employee has been counselled regarding the results of this medical evaluation and of any medical conditions resulting from ethylene oxide exposure that require further evaluation or treatment.

\_\_\_\_\_  
(examiner's signature and stamp)

(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

\_\_\_\_\_  
DATE

OCCUPATIONAL EXPOSURE TO FORMALDEHYDE

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code: \_\_\_\_\_

1. The above noted individual was examined according to current guidelines regarding exposure to formaldehyde. On the basis of this examination the following comments are submitted:
2. A medical condition WAS/WAS NOT detected that would place the employee at an increased risk of material impairment of health from exposure to formaldehyde. Comments (if applicable):
3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable):
4. The employee has been counselled regarding (1) the results of this medical evaluation, (2) any medical conditions which would be aggravated by exposure to formaldehyde or which may have resulted from past formaldehyde exposure or from exposure in an emergency, and (3) whether there is a need for further examination or treatment.

\_\_\_\_\_  
(examiner's signature and stamp)

\_\_\_\_\_  
(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974

\_\_\_\_\_  
DATE

OCCUPATIONAL EXPOSURE TO LEAD

PHYSICIAN'S WRITTEN OPINION in the case of:

Name: \_\_\_\_\_ SSN: \_\_\_\_\_ Dept/Code \_\_\_\_\_

1. The above noted individual was examined according to 29 CFR 1910.1025 regarding occupational exposure to lead. On the basis of this examination the following comments are submitted:
2. A medical condition WAS/WAS NOT detected that would place the employee at an increased risk of material impairment of health from exposure to lead. Comments (if applicable):
3. Limitations ARE/ARE NOT recommended on this individual's exposure or use of personal protective equipment, including respirators. Comments (if applicable):
4. The employee has been counselled regarding the results of this medical evaluation and of any medical conditions resulting from lead exposure that require further evaluation or treatment.

\_\_\_\_\_  
(examiner's signature and stamp)

\_\_\_\_\_  
(date)

Original: health record  
Copies: employee  
employee's command

THIS LETTER IS PROTECTED BY THE PRIVACY ACT OF 1974



\_\_\_\_\_  
DATE

NOTICE OF SIGNIFICANT THRESHOLD SHIFT

NAME: \_\_\_\_\_ SSN: \_\_\_\_\_ CODE/DEPT \_\_\_\_\_

Ref: (a) 29 CFR 1910.95

1. The results of the hearing test provided to you as part of the Navy Hearing Conservation Program indicate that you may have suffered a deterioration in your hearing sensitivity. This condition is referred to as a Significant Threshold Shift (STS). Because of the test results, you have been or will be scheduled for one or more hearing tests to confirm the findings. Also, you may be given a medical examination to determine the probable cause of the STS. This written notification is presented under the requirements of reference (a).
2. Audiometric technicians have provided you with properly fitted hearing protection devices and given you a reindoctration of the Hearing Conservation Program requirements.
3. In order to preserve your hearing, it is very important that you wear your hearing protection at all times when in areas identified as noise hazardous or in the vicinity of noise hazardous tools, weapons or operations.

I HAVE READ AND UNDERSTAND THE ABOVE INFORMATION:

PATIENT SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

\_\_\_\_\_  
Audiometric Technician Signature

## APPENDIX G

American Cancer Society (ACS) recommendations to maximize the performance of the Hemoccult II.

1. Subjects should avoid ingesting red meat and high-peroxidase foods for three days before and during testing.
2. Use of vitamin C, iron tablets and nonsteroidal anti-inflammatory drugs should be avoided.
3. Two samples of each of three consecutive stools should be tested.
4. The delay between preparation and laboratory testing should not exceed three days.
5. Slides should not be rehydrated.
6. A single positive smear should be considered a positive test result, even in the absence of dietary restriction.

ACS recommendations for the early detection of cancer in asymptomatic people include:

<u>Test or Procedure</u>	<u>Population</u>		<u>Frequency</u>
	<u>Sex</u>	<u>Age</u>	
Stool Guaiac Slide Test	M & F	Over 50	Every Year
Digital Rectal Examination	M & F	Over 40	Every Year

REFERENCE: Knight KK, Fielding JE, Battista RN. Occult Blood Screening for Colorectal Screening. JAMA. 1989;261:587-593.

# APPENDIX H

## ALPHABETICAL LISTING OF STRESSORS

Program Number	Stressor/Program Name	Page
102	2-ACETYLAMINOFLUORENE.....	4-1
601	ACID/ALKALI (PH <4.0 OR > 11.0).....	6-1
103	ACRYLAMIDE .....	4-3
104	ACRYLONITRILE (VINYL CHLORIDE).....	4-5
105	ALLYL CHLORIDE.....	4-7
152	ALLYL GLYCIDYL ETHER (AGE).....	4-91
106	4-AMINODIPHENYL.....	4-9
107	AMMONIA.....	8-B
108	ANESTHETIC GASES.....	4-11
207	ANIMAL ASSOCIATED DISEASE.....	4-13
109	ANTIMONY.....	4-15
110	ANTINEOPLASTIC DRUGS.....	4-17
111	ARSENIC, 10+ YEARS EXPOSURE.....	4-19
112	ARSENIC, ANY EXPOSURE.....	4-21
113	ASBESTOS, CURRENT WORKER 10+ YEARS SINCE FIRST EXPOSURE.....	4-23
114	ASBESTOS, CURRENT WORKER 0 TO 10 YEARS SINCE FIRST EXPOSURE.....	4-25
115	ASBESTOS, PAST WORKER 10+ YRS EXPOSURE.....	4-27
116	ASBESTOS, PAST WORKER, 0 TO 10 YEARS SINCE FIRST EXPOSURE...	4-29
701	AVIATION.....	7-1
133	BARIUM CHROMATE.....	4-57
117	BENZENE.....	4-31
118	BENZIDINE.....	4-33
119	BENZOYL PEROXIDE.....	8-B
120	BENZYL CHLORIDE.....	8-B
121	BERYLLIUM.....	4-35
132	BETA-CHLOROPRENE.....	4-55
185	BETA-PROPIOLACTONE.....	4-151
178	BLOOD AND/OR BODY FLUIDS.....	4-37
122	BORON TRIFLUORIDE.....	4-39
704	BRAKEMEN.....	7-5
123	2-BUTANONE.....	8-B
152	n-BUTYL GLYCIDYL ETHER.....	4-91
124	CADMIUM.....	4-41
124	CADMIUM CARBONATE.....	4-41
124	CADMIUM CHLORIDE.....	4-41
124	CADMIUM DUSTS AND SALTS.....	4-41
124	CADMIUM FLUOBORATE.....	4-41
124	CADMIUM NITRATE.....	4-41
124	CADMIUM OXIDE FUME.....	4-41
124	CADMIUM OXIDE PRODUCTION.....	4-41
124	CADMIUM SULFATE.....	4-41

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
124	CADMIUM SULFIDE.....	4-41
133	CALCIUM CHROMATE.....	4-57
156	CALCIUM CYANAMIDE.....	4-97
156	CALCIUM CYANIDE.....	4-97
150	CALCIUM FLUORIDE.....	4-87
179	CARBARYL.....	4-143
125	CARBON BLACK.....	4-43
126	CARBON DISULFIDE.....	4-45
127	CARBON MONOXIDE.....	4-47
128	CARBON TETRACHLORIDE.....	4-49
150	CARBONYL FLUORIDE.....	4-87
703	CHILD CARE WORKER.....	7-3
129	CHLORINE.....	8-B
184	CHLORODIPHENYL (42% CHLORINE).....	4-149
184	CHLORODIPHENYL (54% CHLORINE).....	4-149
163	CHLOROETHYL MERCURY.....	4-113
166	CHLOROMETHYL METHYL ETHER.....	4-117
130	CHLOROFORM.....	4-51
131	bis (CHLOROMETHYL) ETHER.....	4-53
132	BETA-CHLOROPRENE.....	4-55
133	CHROMIC ACID/CHROMIUM (VI).....	4-57
133	CHROMITE ORE PROCESSING (As CHROMATE).....	4-57
133	CHROMIUM (VI) WATER INSOLUBLE.....	4-57
133	CHROMIUM (VI) WATER SOLUBLE.....	4-57
133	CHROMIUM CARBONYL.....	4-57
133	CHROMIUM OXIDE.....	4-57
133	CHROMIUM PHOSPHATE.....	4-57
134	COAL TAR PITCH VOLATILES/POLYCYCLIC AROMATIC HYDROCARBONS...	4-59
208	COBALT.....	4-61
501	COLD.....	5-1
704	CONDUCTORS.....	7-5
704	CONSTRUCTION, RAILROAD, AND WEIGHT HANDLING EQUIPMENT OPERATORS.....	7-5
704	CRANE OPERATORS.....	7-5
135	CRESOL.....	4-63
135	CRESOL (O,M,P-MIXTURE).....	4-63
156	CYANAMIDE.....	4-97
156	CYANIDES.....	4-97
156	CYANOGEN.....	4-97
156	CYANOGEN CHLORIDE.....	4-97

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
603	CYCLOHEXANONE.....	6-5
137	DBCP.....	4-65
706	DEPARTMENT OF TRANSPORTATION (DOT) VEHICLE OPERATORS.....	7-7
213	4,4'-DIAMINODIPHENYLMETHANE.....	4-123
137	1,2-DIBROMO-3-CHLOROPROPANE (DBCP).....	4-65
180	DIBUTYLTIN DILAURATE.....	4-145
138	3,3'-DICHLOOROBENZIDINE.....	4-67
168	DICHLOROMETHANE.....	4-121
152	DIGLYCIDYL ETHER (DGE).....	4-91
139	4-DIMETHYLAMINOAZOBENZENE.....	4-69
155	1,1-DIMETHYLHYDRAZINE.....	4-95
140	DINITRO-O-CRESOL.....	4-71
141	DIOXANE.....	4-73
216	DIQUAT.....	4-93
135	2,6-DITERT-BUTYL-P-CRESOL.....	4-63
705	DIVER/HYPERBARIC WORKER.....	7-9
142	EPICHLOROHYDRIN.....	4-75
143	ETHOXY AND METHOXY ETHANOL.....	4-77
143	2-ETHOXYETHANOL.....	4-77
603	ETHYL BUTYL KETONE.....	8-B
145	ETHYLENE DIBROMIDE.....	4-79
146	ETHYLENE DICHLORIDE.....	4-78
147	ETHYLENE GLYCOL.....	8-B
186	ETHYLENE GLYCOL DINITRATE.....	4-147
148	ETHYLENE OXIDE.....	4-83
149	ETHYLENIMINE.....	4-85
186	ETHYLHEXYL NITRATE.....	4-147
706	EXPLOSIVE ORDNANCE DRIVERS.....	7-7
706	EXPLOSIVE ORDNANCE HANDLERS.....	7-7
179	FERBAM.....	4-143
707	FIREFIGHTER.....	7-11
708	FIREFIGHTER INSTRUCTOR.....	7-13
150	FLUORIDES.....	4-87
150	FLUORIDES (INORGANIC).....	4-87
150	FLUORINE.....	4-87
709	FOODSERVICE PERSONNEL.....	7-15
710	FORKLIFT OPERATOR.....	7-17
151	FORMALDEHYDE.....	4-89
718	FREON WORKERS.....	7-19

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
152	GLYCIDOL.....	4-91
152	GLYCIDYL ETHERS.....	4-91
603	GLYCOL ETHERS (OTHER THAN ETHOXY AND METHOXY ETHANOL).....	8-B
156	GOLD CYANIDE.....	4-97
108	HALOTHANE.....	4-11
508	HAND-ARM (SEGMENTAL) VIBRATION.....	5-15
711	HAZARDOUS WASTE WORKERS AND EMERGENCY RESPONDERS.....	7-21
719	HEALTH CARE WORKER.....	7-23
502	HEAT.....	5-3
216	HERBICIDES.....	4-93
196	HEXAMETHYLENE DIISOCYANATE.....	4-103
603	HEXONE (METHYL ISOBUTYL KETONE).....	8-B
155	HYDRAZINES.....	4-95
601	HYDROCHLORIC ACID.....	6-1
156	HYDROGEN CYANIDE/CYANIDE SALTS.....	4-97
150	HYDROGEN FLUORIDE.....	4-87
158	HYDROGEN SULFIDE.....	4-99
159	HYDROQUINONE (DIHYDROXY BENZENE).....	4-101
505	IONIZING RADIATION.....	5-9
196	ISOCYANATES.....	4-103
196	ISOCYANURIC ACID.....	4-103
196	ISOPHORONE DIISOCYANATE.....	4-103
160	ISOPROPYL ALCOHOL.....	8-B
152	ISOPROPYL GLYCIDYL ETHER.....	4-91
506	LASERS.....	5-11
161	LEAD (INORGANIC).....	4-105
133	LEAD CHROMATE.....	4-57
161	LEAD CHROMATE.....	4-105
156	LITHIUM CYANIDE.....	4-97
135	m-CRESOL.....	4-63
162	MACHINE OIL MISTS/CUTTING FLUIDS.....	4-107
179	MALATHION.....	4-143
210	MANGANESE (AND COMPOUNDS).....	4-109
210	MANGANESE OXIDE FUMES.....	4-109
212	MANMADE MINERAL FIBERS.....	4-111
163	MERCURY.....	4-113
163	MERCURY (VAPOR).....	4-113
163	MERCURY (ALKYL COMPOUNDS).....	4-113
163	MERCURY (ARYL AND INORGANIC).....	4-113
163	MERCURY VAPOR.....	4-113
602	METAL FUMES.....	6-3
165	METHANOL.....	8-B

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
143	2-METHOXYETHANOL.....	4-77
165	METHYL ALCOHOL.....	8-B
215	METHYL BROMIDE.....	4-115
197	METHYL CHLOROFORM.....	4-171
166	METHYL CHLOROMETHYL ETHER.....	4-117
156	METHYL 2-CYANOACRYLATE.....	4-97
123	METHYL ETHYL KETONE (2-BUTANONE).....	8-B
155	METHYL HYDRAZINE.....	4-95
603	METHYL ISOBUTYL KETONE.....	6-5
164	METHYL N-AMYL KETONE.....	8-B
179	METHYL PARATHION.....	4-143
603	METHYL PROPYL KETONE (2-PENTANONE).....	8-B-1
180	METHYL TIN MERCAPTIDE.....	4-145
156	METHYLACRYLONITRILE.....	4-97
196	METHYLENE BIS (4-CYCLO-HEXYLISOCYANATE).....	4-103
196	METHYLENE BISPHENYL ISOCYANATE (MDI).....	4-103
167	4,4'-METHYLENE bis (2-CHLOROANILINE) (MOCA).....	4-119
168	METHYLENE CHLORIDE (DICHLOROMETHANE).....	4-121
213	METHYLENE DIANILINE.....	4 123
603	MIXED SOLVENTS.....	6-5
167	MOCA.....	4-119
169	MORPHOLINE.....	8-B
712	MOTOR VEHICLE OPERATOR (OTHER THAN DOT).....	7-25
196	1,5-NAPHTHALENE DIISOCYANATE.....	4-103
170	ALPHA-NAPHTHYLAMINE.....	4-125
171	BETA-NAPHTHYLAMINE.....	4-127
177	N-NITROSODIMETHYLAMINE.....	4-141
713	NAVAL INVESTIGATIVE SERVICE.....	7-27
173	NICKEL CARBONYL.....	4-131
172	NICKEL METAL AND INSOLUBLE COMPOUNDS.....	4-129
172	NICKEL SOLUBLE COMPOUNDS.....	4-129
172	NICKEL SULFIDE ROASTING.....	4-129
172	NICKEL (INORGANIC).....	4-129
601	NITRIC ACID.....	6-1
601	NITRIC ACID.....	6-1
174	NITRIC OXIDE.....	4-133
175	4-NITROBIPHENYL.....	4-135
175	4-NITRODIPHENYL.....	4-135
174	NITROGEN DIOXIDE.....	4-133
174	NITROGEN OXIDES.....	4-133
176	NITROGLYCERIN.....	4-137

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
211	2-NITROPROPANE.....	4-139
177	N-NITROSODIMETHYLAMINE.....	4-141
108	NITROUS OXIDE.....	4-11
503	NOISE.....	5-5
512	NOISE-FOLLOW UP.....	5-7
101	NUISANCE DUST.....	8-B-1
135	o-CRESOL.....	4-63
162	OIL MIST, MINERAL.....	4-107
179	ORGANOPHOSPHATE/CARBAMATE COMPOUNDS.....	4-143
180	ORGANOTIN COMPOUNDS.....	4-145
186	OTTO FUEL/OTHER ALKYL NITRATE PROPELLANTS.....	4-147
135	p-CRESOL.....	4-63
216	PARAQUAT.....	4-93
179	PARATHION.....	4-143
184	PCB.....	4-149
603	2-PENTANONE (METHYL PROPYL KETONE).....	8-B-1
192	PERCHLOROETHYLENE.....	4-161
150	PERCHLORYL FLUORIDE.....	4-87
182	PHENOL.....	8-B-1
152	PHENYL GLYCIDYL ETHER (PGE).....	4-91
155	PHENYLHYDRAZINE.....	4-95
183	PHOSGENE.....	8-B-1
714	POLICE/GUARD SECURITY.....	7-29
184	POLYCHLORINATED BIPHENYLS (PCB).....	4-149
133	POTASSIUM CHROMATE.....	4-59
156	POTASSIUM CYANIDE.....	4-97
715	PREPLACEMENT/PREEMPLOYMENT.....	7-31
185	BETA-PROPIOLACTONE.....	4-151
179	PROPOXUR (BAYGON).....	4-147
186	PROPYLENE GLYCOL DINITRATE.....	4-147
506	RADIATION - IONIZING.....	5-9
506	RADIATION - LASER (CLASS III & IV).....	5-11
507	RADIATION - RADIOFREQUENCY AND MICROWAVE.....	5-13
507	RADIOFREQUENCY RADIATION.....	5-13
704	RAILROAD EQUIPMENT OPERATORS.....	7-5
152	RESORCINOL DIGLYCIDYL ETHER.....	4-91
716	RESPIRATOR USER CERTIFICATION EXAM.....	7-33
510	SIGHT CONSERVATION.....	5-17
187	SILICA (CRYSTALLINE).....	4-153
187	SILICA AMORPHOUS FUSED.....	4-153
187	SILICA CRYSTALLINE CRISTOBALITE.....	4-153
187	SILICA CRYSTALLINE QUARTZ.....	4-153
187	SILICA CRYSTALLINE TRIDYMIT.....	4-153



# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
187	SILICA CRYSTALLINE TRIPOLI.....	4-153
156	SILVER CYANIDE.....	4-97
133	SODIUM CHROMATE.....	4-57
156	SODIUM CYANIDE.....	4-97
133	SODIUM DICHROMATE.....	4-57
188	SODIUM HYDROXIDE.....	8-B-1
133	STRONTIUM CHROMATE.....	4-57
189	STYRENE.....	4-155
717	SUBMARINE DUTY.....	7-35
190	SULFUR DIOXIDE.....	4-157
601	SULFURIC ACID.....	6-1
150	SULFURYL FLUORIDE.....	4-87
133	TERT-BUTYL CHROMATE.....	4-57
191	1,1,2,2-TETRACHLOROETHANE.....	4-159
192	TETRACHLOROETHYLENE (PERCHLOROETHYLENE).....	4-161
209	TETRYL.....	4-163
135	4,4'-THIOBIS (6-TERT-BUTYL-M-CRESOL).....	4-63
186	THYLENE GLYCOL DINITRATE.....	4-147
180	TIN (ORGANIC COMPOUNDS).....	4-145
199	TMPP (TRIMETHYLOLPROPANE PHOSPHATE).....	4-175
214	-TOLIDINE.....	4-165
195	TUENE.....	4-167
196	TOLUENE-2,4-DIISOCYANATE (TDI).....	4-103
194	O-TOLUIDINE.....	4-169
180	TRIBUTYLTIN BENZOATE.....	4-145
180	TRIBUTYLTIN FLUORIDE.....	4-145
180	TRIBUTYLTIN OXIDE.....	4-145
718	1,1,2-TRICHO-1,1,2-TRICHO-1,2,2,-TRIFLUOROETHANE (CFC-113).....	7-19
197	1,1,1-TRICHLOROETHANE (METHYLCHLOROFORM).....	4-171
198	TRICHLOROETHYLENE.....	4-173
199	TRIORTHOCRESYLPHOSPHATE (TOCP).....	4-175
200	TUNGSTEN (INSOLUBLE COMPOUNDS).....	4-177
200	TUNGSTEN (SOLUBLE COMPOUNDS).....	4-177
200	TUNGSTEN AND CEMENTED TUNGSTEN CARBIDE.....	4-177
201	VANADIUM.....	4-179
210	VANADIUM (AS V2O5 DUST).....	4-179
201	VANADIUM (AS V2O5 FUME).....	4-179
508	VIBRATION, SEGMENTAL.....	5-15
511	VIBRATION, WHOLE BODY.....	5-19

# ALPHABETICAL LISTING OF STRESSORS/PROGRAMS

Program Number	Stressor/Program Name	Page
202	VINYL ACETATE.....	8-B-1
203	VINYL CHLORIDE 10+ YEARS EXPOSURE (CHLOROETHENE).....	4-181
204	VINYL CHLORIDE ANY EXPOSURE (CHLOROETHENE).....	4-183
702	WASTEWATER/SEWAGE WORKER.....	7-37
205	XYLENE.....	4-185
205	XYLENE (o-, -m-, p-ISOMERS).....	4-185
205	XYLENE (m-ISOMERS).....	4-185
205	XYLENE (o-ISOMERS).....	4-185
205	XYLENE (p-ISOMERS).....	4-185
133	ZINC CHROMATE.....	4-57
133	ZINC CHROMATE HYDROXIDE.....	4-57
206	ZINC OXIDE.....	8-B-1
206	ZINC OXIDE (DUST).....	8-B-1
206	ZINC OXIDE (FUME).....	8-B-1
133	ZINC POTASSIUM CHROMATE.....	4-57
133	ZINC YELLOW.....	4-57